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ABSTRACT

The main purpose of this reference volume on Outward Bound (OB) is to provide access to the research literature by giving the reader a sense of the state of the literature, providing analysis on salient research and programmatic issues, granting easy access to individual pieces of research, and opening up related research literatures. Section I is an overview of the research literature on OB presented in tabular form and listing title, author(s), topic, type of study, type of course, assessment, and whether or not the study's findings are reported in Section II. Explanations are provided on how to use the table and its relationship to other sections in the volume. Section II is a report on what has been learned about academic and research issues from the literature; it constitutes a review of empirical studies, covering research design, theory, special OB topics, and other observations. Section III consists of two types of summaries: (1) summaries by the author of this volume which include critical commentary; and (2) summaries in the words of the authors of the research. Section IV is an extensive bibliography of related research literatures organized under three major headings: (1) Education; (2) Psychology; and (3) Corrections. A minor heading "Other" is also included. The bibliography includes well over 1000 citations dating from the early 1900's to the present. Section III includes over 100 summaries by Shore and by the research authors covering OB from its inception to the present. (JC)

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A REFERENCE VOLUME

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A REFERENCE VOLUME

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Arnold Shore

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Preface

This is a reference volume on Outward Bound. Its main purpose is to provide access to the research literature on Outward Bound. Closely allied are several additional goals, including giving the reader a sense of the state of the literature; providing analysis on salient research and programmatic issues; granting easy access to individual pieces of research; and opening up related research literatures. The organization of this volume reflects these interests and goals.

Section I is an overview of the research literature on Outward Bound. The table which constitutes the bulk of this section lists title, author(s), topic, type of study, type of course, assessment, and whether or not the study's findings are reported in Section II. The narrative explains the various ways in which the reader can use this table, including its relationship to other sections of the volume.

Section II is a report on what we know about academic and research issues from the literature. It is a review of empirical studies covering research design, theory, special Outward Bound topics, and other observations.

Section III consists of summaries of individual reports of research. Two types of summaries are included: first, summaries by this writer which are precis statements of the research with critical commentary; and second, summaries in the words of the authors of the research, each of which is meant to provide first-hand information in shortened form.

Section IV is an extensive bibliography of related research literatures. The bibliography is organized under three major headings -- education,

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psychology, and corrections -- one minor heading -- the inevitable "other" category -- with refined breakdowns for each of the categories mentioned. These references were culled from all of the literature reviewed in this volume. The bibliography provides an intellectual context for Outward Bound research and useful starting points for pursuing additional reading.

A premise underlying the commission of this volume in the form described above is this: by being clear about what we know and do not know about Outward Bound on the basis of the research literature, we can be clearer about the uses to which current research can be put and the types of research which would be helpful in the future. Hopefully, this volume will enable each of us to address these issues more thoughtfully. No attempt has been made to do so here. Rather, a clear separation has been attempted between a reference volume on Outward Bound and a research agenda for Outward Bound.

In working on this volume I have enjoyed the help and support of many colleagues and friends. I wish to thank Karen Jorgensen for a yeoman's job of typing, and I want to thank Jean Yoder for her careful and sensible editing. At the heart of this volume is their good work. I also wish to thank my friends at Outward Bound who understand how to maintain a wonderful professional working relationship. Here I would single out John Rhoades who took responsibility for locating the literature and who turned out to be the finest monitor of work progress I have ever met.

My deepest appreciation extends to Gregory Farrell and Derek Pritchard. Greg helped formulate the idea of a reference volume, extended the invitation to compile and write the volume, and chatted with me at length about my observations and ideas. I hope that this work reflects Greg's enthusiasm for knowledge.

I am not an unabashed admirer of Outward Bound; I am, instead, an unabashed advocate of the need to know more about Outward Bound, of the need to relate research to programmatic interests, and of the need to maintain the highest standards in our intellectual reflections on this extraordinary educational and experiential innovation. I would be less ardent, less interested if it were not for the example of Derek Pritchard. I learned Outward Bound from Derek: I shall always be grateful.

The evaluative statements in this volume reflect my assessments, not necessarily those of Outward Bound nor those of the persons to whom I have acknowledged my great personal and intellectual debts.

Arnold Shore

New York City
February 1977

SECTION I

OVERVIEW

Introduction

The purpose of this section is to provide an overview of the research literature on Outward Bound and to begin to address the question of what we know about Outward Bound from this literature. In the table which follows, the first five headings can be grouped under "overview"; the last two headings under "what we know." Specifically, entries under the first five headings will give the reader basic information (title, author(s), topic), a sense of the research problem (type of study), and how the study relates to Outward Bound (type of course). Entries under "assessment" and "included-not included" require elaboration.

To begin to address the question of what we know about Outward Bound, we need to decide whether or not a study is worthy, and whether or not its conclusions stand. Most of the research literature on Outward Bound is not published. While publication does not always assure high quality, it does help to increase the percentage of believable studies. In any case, a study's conclusion may be flawed and therefore require qualification, if not exclusion. One cannot erase extant literature, but one can give an opinion as to which works merit attention in serious studies of Outward Bound. In summary, where it was not possible to accept the findings of the study, or where the research was deemed unworthy of further attention on the part of future researchers, the study and its finding were not included in the body of Section II. Thus the designation "not included." Where these not-included studies provided observations worthy of note, they appear in the last part of Section II.

Beyond these points of organization and rationale are the uses of the tabular presentation and some generalizations easily agreed upon. In addition to "title" and "author(s)," I have included "topic," since titles sometimes fail to convey essential information. The reader will find that few authors have contributed more than a single work on Outward Bound; that there are many studies of self-concepts, few studies of instructors, and only one study of cost (to choose from among a variety of topics); that Outward Bound is a favorite topic for theses and dissertations; and that titles convey less than meets the eye.

For those interested in the dimensions of research, "type of study" might be the proper starting point. The reader will find there a great many empirical studies employing psychological measures and tests; also that the range of research approaches is enormous, including quasi-experiments, administrative reports, reportage, literature reviews, conceptual, statistical and theoretic studies, matched-group designs, descriptive case studies, and participant-observation studies. The organization of this volume permits the examination of findings by type of study, a task which might reveal interesting observations on which types of questions are stressed in which types of research, and whether or not these are artifacts of methods.

One must conclude, overall, that the research literature of Outward Bound is weak. It has focused on disciplinary issues (self-concept, self-esteem) to the virtual exclusion of their relationship to programmatic issues (length of course, mix of activities, and nature of instruction). There have been few attempts to link outcome measures with program components and very little statistical analysis in this sense as opposed to statistical reporting.

Of course, these conclusions and the assessments upon which they are based are but one person's evaluation. Because of the table format, the entries are brief. The reader can refer to the summaries in Section III for a more detailed explanation of these assessments. There the reader also will find summaries in the authors' own language.

I have not taken a position on the value of the type of research -- that is to say, I have not tended, for example, to "include" research which is empirical and "not include" that which is theoretical. Rather, given the type of research, I have made my assessment on the bases of whether or not the work is useful, believable, and accurate.

Tabular Presentation of Research

Title	Author(s)	Topic
Adventure Curriculum: Physical Education	--	how to build an OB camp
"Instructors' ratings of delinquents after Outward Bound survival training and subsequent recidivism."	Daniel J. Baer, Peter J. Jacobs, and Francis E. Carr	five-year follow-up study of Kelly's study
"The Effect of the Outward Bound Experience Upon the Self-Image of Adolescent Boys"	James T. Barter	report of negative impact of OB on self-image
"Wilderness as a Therapeutic Behavior Setting"	Arthur Bernstein	presentation of arguments for developing an adventure program for chronic schizophrenics
The Relationship of Antecedent Variables and Process Variables to Differential Outcome in a Stress-Challenge Program	Samuel Bernstein	relationship of psychological scale outcomes to high and low program gain scores
"Psychological Readiness for and Change Associated with the Outward Bound Program: North Carolina Outward Bound School"	L. J. Borstelmann	relationship between instructors and students on values and self-determination
"Modified Outward Bound Club: A Therapeutic Endeavor for Action Oriented Youths"	Charles Cataldo	psychological and behavioral adjustments

Type of Study	Type of Course	Assessment	Included - Not Included
how-to manual	adapting aspects of OB into an ongoing curriculum of a public school	not reflective on why certain activities are suggested (or adapted) and not others; not useful for our purposes	not included
empirical study employing rating scales and records of recidivism from Division of Youth Services	26-day OB course at COBS, MOBS, and HIOBS in Summer 1966	good, straightforward study	included
empirical study employing self-image scales	26-day OB course at COBS	interesting but flawed	included
theoretical	--	interesting arguments but overstated	included
empirical study employing psychological scales	20-day stress-challenge program	poorly thought out application of a series of scales with no apparent purpose nor potential usefulness	not included
empirical study employing psychological scales	26-day OB course at NCOBS	analytic stance of relating instructor scores to participant scores is commendable	included
participant-observation	six members of a club and an equal number of youths for comparison	rather poor	not included

Title	Author(s)	Topic
"Modified Outward Bound Project"	Charles Cataldo	stress, ability to cope without drugs and learning new skills
"Self-concepts before and after survival training"	Edward Clifford and Miriam Clifford	effects of one month of survival training on self-concepts
"Survival Camping: A Therapeutic Mode for Rehabilitating Problem Youth"	Thomas R. Collingwood	less expensive alternative to OB in treatment of problem youth
"A Winter Mountaineering Program in an Urban High School"	Arthur Wellington Conquest, III	description of program activities, stress, group pressure, and solutions to adversity
"Alternate Semester 1972"	Barry D. Copp, Elizabeth D. Pierson, and Karen Sargent	description of a five-part program constituting alternative education, one part being OB, some others OB-related
"The Connecticut Wilderness Program: A Preliminary Evaluation Report"	Solomon Cytrynbaum and Kathy Ken	general evaluation
The Fear Experience in Rock Climbing and Its Influence Upon Future Self-Actualization	Robert Ward Davis	philosophical treatment of fear, enthusiasm, self-awareness, and self-actualization

Type of Study	Type of Course	Assessment	Included - Not Included
descriptive case study	Dix Wilderness program	rambling, disorganized and overinterpreted	not included
empirical study employing self scales, semantic differential scales, and counselor ratings	26-day course at COBS	results are believable; however, design is flawed and analysis is unimaginative	included
demonstration program employing test batteries and questionnaires	Camp Challenge - a derivative of OB	good	included
narrative report; administrative evaluation	Park East High School winter mountaineering program - a derivative of OB	not a piece of research; however, the narrative is interesting and some research-like conclusions can be drawn	included
faculty evaluation	3-week winter survival course at HIOBS; river unit and urban experience - derivative of OB	beautifully and honestly written	included
quasi-experimental evaluation study	Connecticut Wilderness School Experience - derivative of OB	very good	included
theorizing with light use of questionnaire data	[graduates of OB schools]	poor	not included

Title	Author(s)	Topic
"East High School Senior Seminar: 1973 Evaluation"	Gerald E. Elledge	descriptions of modules and reports of questionnaire data
"The Respect of Others' Rights is Peace"	William Elliot	reminiscences of journal entries
Students of Outward Bound Schools in Great Britain: A Follow-Up Study	B. A. Fletcher	report on a series of follow-up or evaluative studies on the experiences of sponsors and participants with OB
"An Analysis of an Outward Bound Experience and Its Relationship to Teacher Education"	Herbert L. Foster, Diane L. DeBacy, William D. Loockerman, and Roy K. Bartoo	evaluation of twenty-four students' participation in OB
"Delinquency and the Outward Bound Program: An Empirical Evaluation of a Radical Approach to Delinquency"	G. William Freeman, Bernard Spilka, and Ralph Mason	empirical study testing for change in alienation, achievement motivation, aggression, etc.
A Study of Attitude Changes as a Result of Outward Bound Mountain Ski School, C-60	James H. Gillette	Q-sort of attitudinal items related to OB
Outward Bound: A Model for Educational Change and Development	Robert John Godfrey	description of seminars and untabulated responses to questionnaire items
"Perspectives on the Design and Management of 'Experience Seminars'"	Gerald L. Golins	nature of course - low points, high points

Type of Study	Type of Course	Assessment	Included - Not Included
"evaluation"	one module derivative of OB (Mexico Module)	poor	not included
journal entries	OB course	overly serious and puffy	not included
review of empirical literature	OB courses	conclusions highly believable due to repetitive findings	included
"evaluation" of use of OB for teacher preparation	DOBS course	poorly presented and uninformative	not included
comparison study of delinquent and non-delinquent males	COBS course	questionable statistical procedures	not included
dust bowl empiricism	Outward Bound C-60 (21-day residential mountain ski school program)	Q-sort methodology is adequate; however, results are not interpretable	not included
narrative	COBS directed three-year project of educational change and development in School District No. Eleven in Colorado Springs	well-written but disappointing report which presents unanalyzed responses to questionnaire items and then summarizes "findings" in an almost off-handed way	not included
administrative evaluation	COBS course	sketchy; not research	not included

Title	Author(s)	Topic
Wilderness Survival Training: The Contribution of Small Group Survival Research to the Understanding of Its Potential for Effecting Psychological Change	Irving S. Greentree, III	part played by stress, task variables, group variables, environmental variables, and individual adaptation in OB
"The Measurement of Affective Education; A Report of Recent Work by Outward Bound Prepared for the Conference on Outdoor Pursuits in Higher Education"	Paul Harmon	specification of affective behavioral changes
Evaluation of Outward Bound Teachers' Practica, Summer, 1969	Glen Hawkes, Joseph Schulze, John Delaney, Trudy Schulze, and John Woodbury	report on an OB experience for educators
"Self-Concept Changes Immediately and One Year After Survival Training"	Richard A. Heaps and Clark T. Thorstenson	permanence of changes in self-concept
Outward Bound and Personality: 16 PF Profiles of Instructors and Ipsative Changes in Male and Female Students 16-19 Years of Age	Christopher Martin Hendy	personality factors of instructors, OB students, and dropouts
"The Role of Experience in Education"	Harold Howe II	nature of experiential education and the importance of cooperation as exhibited in OB
"The Effect of A Well-Organized Physical Education Program on Intellectual Performance"	A. H. Ismail	study of relationship between a physical education program designed with special emphasis on coordination and balance and academic performance and IQ

Type of Study	Type of Course	Assessment	Included - Not Included
literature review	--	completely academic compilation of a fascinating topic	included
conceptual study	--	interesting, specific, even and precise	included
empirical study employing interviews, questionnaires, and diaries	special course consisting of survival training, hikes, rafting trips, peak climbs, a three-day solo, and a 3-day urban experience	adequate report which lacks discussion of seminal issue of limitation of OB program for specialized purposes (such as the training of teachers)	included
empirical study employing psychological scales	OB-type survival course at Brigham Young University	good	included
empirical study employing psychological scales	NOBS course	questionable procedures and awkward presentation	not included
--	--	discursive	not included
experimental study	--	extremely interesting; close to interests of OB but not, strictly speaking, a study of OB	included

Title	Author(s)	Topic
"Adventure Experiences as Treatment for Residential Mental Patients"	Lute Jerstad and John Stelzer	counterposing of the "adventure" and "survival" models as applied to mental patients
"The Effects of a Course at the Canadian Outward Bound School at Keremeos, B.C."	Robert Jickling	relationship of personality factors to OB
"Evaluation of Two Adventure Programs"	Donald R. Johnson	assessment of inputs to three areas: personal growth, social functions, and physical functioning
"Experiential Outdoor Education in the Junior High School: The Colorado Springs Experience"	Nona Kahn	how to administer experiential outdoor education programs in a junior high school setting
"Outward Bound and Education for Personal Growth"	Richard Katz and David Kolb	detailed discussion of effects of activities of OB schools
Outward Bound Schools as an Alternative to Institutionalization for Adolescent Delinquent Boys	Francis J. Kelly and Daniel J. Baer with a participant observers' report by Richard Katz and David Kolb	full report of a demonstration project to determine whether or not OB is more effective than training schools as measured by rates of return to juvenile institutions
"Physical Challenge as a Treatment for Delinquency"	Francis J. Kelly and Daniel J. Baer	effects of OB on recidivism rates

Type of Study	Type of Course	Assessment	Included - Not Included
reportorial	"adventure program" conducted by Jerstad Adventures and Parbat Adventure Institute	reportorial, but convincing	included
statistical study	Standard Boys' Course (K47) at the Canadian Outward Bound School	poor	not included
empirical study employing psychological tests, physical tests, a questionnaire, and sociometric data	Adventure Plus (Boys' Club) and Wilderness Encounter (Boy Scouts)	good and careful	included
administrative report	introduction of OB-type course by COBS into Colorado Springs School District 11	suffers from a discrete treatment of pedagogical and administrative aspects of the problem of running an EOE program in a school setting	not included
participant-observation	OB course	good	included
demonstration project	OB courses at various schools	not conclusive and misleading in many respects	included
"matched" groups	two types of OB - severe physical challenge (COBS and HIOBS) and concern for interpersonal relationships and reflection (MOBS)	flawed	included

Title	Author(s)	Topic
"A Rationale for Outdoor Activity as Experiential Education: The Reason for Freezin!"	A. Donn Kesselheim	discussion of elements of outdoor education
"Use of Outward Bound as a Training Component for Administrators: Summary Report of a Mobile Seminar"	A. Donn Kesselheim and John Douglas	experience of educational administrators with OB
The Effects of Outward Bound Participation Upon Anxiety and Self Concept	Sharon Margaret Koepke	relationship among OB, anxiety, and self-concept
"Staff Report: Hurricane Island Outward Bound School - Lyman School for Boys Overlanders Project - January-April 1968"	James G. Leaf	report on introducing OB into a reformatory
"American Indian World View and the Outward Bound Concept: A Comparison"	Peter Lev	parallels in American Indian lore and Outward Bound precepts
"Experience and Change: A Psychometric Assessment of the Impact of Outward Bound Courses"	Darwyn E. Linder and Marie J. Linder	empirical study employing psychological tests
"A Progress Report on the Development of the Outward Bound Phase of the Environmental-Outdoor Education Program Community Unit School District 200, Woodstock, Illinois"	J. Charles Little	presentation of application materials and uncategorized, untabulated responses to a questionnaire
Outward Bound: A Means of Implementing Guidance Objectives	Richard A. Lovett	OB as context for guidance counselling

Type of Study	Type of Course	Assessment	Included - Not Included
theoretical	--	well-written, thoughtful statement; possibly a beginning for empirical research endeavors	included
summary report	HIOBS-sponsored	very weak	not included
empirical study employing psychological scales	COBS course	excellent	included
report on a demonstration project	HIOBS-sponsored Lyman School Overlanders Project	fascinating report	included
theoretical and conceptual	--	poorly thought through, poorly articulated; yet a few insights are quite striking	not included
before-after study	MOBS course	competent assessment but unnecessarily detailed and inconclusive	included
report	--	virtually useless	not included
survey	various	study is so seriously flawed that its conclusions are unwarranted	not included

Title	Author(s)	Topic
Wilderness Adventure Programs: An Activity Profile	Daniel H. Lowenstein	catalogue of programs by activities, clientele, purposes, etc.
"Report on the Outward Bound Learning/Living Term Program at Dartmouth College, Spring Term, 1974"	Robert S. MacArthur and Patricia A. Bergman	report on core course which included OB, outreach, academic work, and cooperative living
"A Proposal to Evaluate the U.S. Outward Bound Schools"	Robert A. Matthai	proposal to conduct research on effect of OB on self-efficacy ("sense of agency"), self-image, social affiliations, and altruism
"Preliminary Report: A Survey of Applicants to the Hurricane Island Outward Bound School"	Robert A. Matthai	profile of applicants by age, schools, etc.
Outward Bound and Higher Education: A Rationale and Outline for College Development	Frederick W. Medrick	brief outline of the aims and purposes of OB with suggestions for affiliation and implementation
An Evaluation of Several Effects of the Title III ESEA Dare to Care Program in Involved Students, Faculty, Parents, and Community Members	Arnold M. Naches and Janet A. Roberts	straight reporting of responses to tests and questionnaires

Type of Study	Type of Course	Assessment	Included - Not Included
reference	--	thorough, competent, and lifeless	included
academic administrative report	components of OB (drownproofing, solo, and OB expedition)	cooperative living replaced OB as focus of report, hence difficult to arrive at definite conclusions on the effects of OB as part of an academic training procedure	not included
research proposal	--	more an announcement than a proposal; very sketchy	not included
survey	HIOBS	suspect--only direct applicants surveyed, items not systematically analyzed to determine value and meaning; too preliminary to report	not included
conceptual	--	pithy and to the point; useful in discussion of theory	included
"evaluation"	Dare to Care Program	analysis so badly flawed that it must be discounted	not included

Title	Author(s)	Topic
"Predispositions and Attitudinal Changes in Outward Bound and Human Relations Groups"	Eugene C. Nelson	comparison of OB and HR groups
"Outward Bound Approaches to Alternative Schooling: A Preliminary Paper"	Joseph J. Nold	arguments for the usefulness of OB for training motivation, human relations, as an alternative to physical education, as enrichment of curriculum and as way to develop faculty
"Wilderness Training as an Alternative to Incarceration"	Joseph Nold and Mary Wilpers	insights about OB and OB-type programs
The Influence of an Outward Bound Program on the Self-Concept of the Participants	Robert Patterson Nye, Jr.	psychological measures of changes in self-concept and duration of change
Upward Bound--Outward Bound: A Study of Dropouts Among Poor Urban Youth in Outward Bound	Elizabeth V. Phillips	variables related to dropping out from OB when coming from UB
"The Assessment of Men for Job Placement at Outward Bound Schools"	John C. Pooley	treatise on assessment itself and as it relates to choice of instructors for OB
"Senior Seminar 1972: An Evaluation of an Experiential Learning Program at East High School, Denver, Colorado"	L. Stanley Ratliff	description of modules of the seminar, some having OB characteristics

Type of Study	Type of Course	Assessment	Included - Not Included
questionnaire study	OB course "staged" in White Mountains in New Hampshire	interesting but naive; conclusions unwarranted	not included
review of literature and issues	--	advocative and unreflective, hence less convincing than could have been	not included
review of literature and issues	--	some very interesting general statements about the nature of OB	included
empirical study employing psychological measures and comparison groups	NCOBS 24-day coeducational course	competent	included
empirical study with ex post facto design	NC-12	fair	included
conceptual	--	rambling, sophomoric; useless in and of itself but useful as a reminder of problems inherent in selecting instructors	not included
descriptive study	modules with OB characteristics	descriptions of modules are sketchy and "evaluations" are practically unusable	not included

Title	Author(s)	Topic
Report on the Practicum in Outward Bound	--	discussion of pedagogic, psychological, and social psychological underpinnings of OB
The Problem of Individual Change in Outward Bound: An Application of Change and Transfer Theory	John Stewart Rhoades	a personal-observational discussion of OB in highly academic discussion of change and transfer theories of Lewin and Schein
"Two Exploratory Studies of West High School Students at Colorado Outward Bound School 1964 and 1965"	Mary S. Richards	social functioning and academic achievement among students who attend COBS and those who do not
Outdoor Wilderness Survival and Its Psychological and Sociological Effects Upon Students in Changing Human Behavior	Seymour Kenneth Robbins, Jr.	multifaceted study of impact of OB-type programs on behavioral and attitude changes, problems of readjustment, and part played by therapy in reinforcing positive values of program
Final Report: Effects of Outward Bound Training on Urban Youth	Harold M. Schroder and Robert E. Lee	psychological impact of OB on urban youths
An Analysis of the Impact of Outward Bound on Twelve High Schools	Joseph R. Schulze	review of implementation of OB in twelve high schools

Type of Study	Type of Course	Assessment	Included - Not Included
descriptive study	academic course sponsored by COBS and Colorado State College	presentation is cluttered and uneven, yet a number of points come through nicely for the reader who pares things down	included
descriptive theoretical study	-	good; however, suffers from excess academic baggage	included
questionnaire survey and in-depth interviews	COBS C-11	interesting but data are not available for inspection	not included
empirical study employing psychological measures	Youth Leadership 480	hopelessly confused; this could have been a major piece of research on survival and wilderness training	not included
empirical study employing psychological measures	Action Bound (OB-type curriculum based in a Trenton high school)	methodology generally acceptable, but findings are misstated and overreported	not included
empirical study employing interviews and questionnaires	standard 26-day summer OB course; Aufsteyer's Mountaineering Club (formed to introduce OB concepts at student level); classroom curriculum employing experiential-OB concepts; service (in OB sense)	well-organized and well-written but superficial in a number of respects	included

Title	Author(s)	Topic
"Evaluation of Dartmouth College-New Hampshire Outward Bound Program, Winter and Spring 1970"	Joseph R. Schulze	"evaluation" focusing on four courses
"Churchill Challenge: A Special Outward Bound Course Conducted by Northwest Outward Bound School for Churchill High School, Eugene, Oregon"	Dan Sellard	report of experiences of fifty high school juniors at NOBS
"Outward Bound in the Professional Education of Teachers: A Study of An Experimental Component in Field Experiences"	Keener Smathers	effects of OB on teacher-related characteristics
An Investigation of the Effects of an Outward Bound Experience on Selected Personality Factors and Behaviors of High School Juniors	Mary Anne Wakefield Smith	impact of OB course on selected personality factors
Evaluation of the Effects of Outward Bound	Mary Lee Smith, Roy Gabriel, James Schott, and William L. Padia	assessment of OB through time series design and participant observation
"Final Report: Project to Design an Evaluation of Outward Bound"	Mary Lee Smith, Roy Gabriel, and Ronald D. Anderson	discussion of true experimental study design for OB evaluation
Project Bacstop: E.S.E.A. Title III Evaluative Report 1975-1976	Lee Snooks and Daniel Long	racial strife

Type of Study	Type of Course	Assessment	Included - Not Included
empirical study employing interviews, questionnaires, discussions with staff, and talks with some parents; in effect, a research-educational-administrative report	four OB-type courses (DOBS; program for high school students emphasizing winter survival and wilderness solo; wilderness experience and an urban solo; wilderness experiences and sea experiences)	admixture of observation and editorial comment	included
reportage	NOBS course	broad and unsearching testimonial	not included
empirical study employing questionnaire data	8-day OB experience; 11-week field experience	poorly-written and misleading; design seriously flawed; number of subjects small	not included
empirical study employing psychological measure and attendance and grade point average	Churchill Challenge - 21-day OB course	OK - but no significant results to speak of	included
statistical study and observational study	COBS course	good but not the product promised in the design volume	included
design study	--	good	included
"evaluation"	BACSTOP program consisting of ropes course, wall and beam obstacle courses, backpacking, cross-country skiing, winter camping, interracial dual solo, and a canoe trip	utterly confused	not included

Title	Author(s)	Topic
Changes in Self-Descriptions of Teachers as a Result of Outward Bound Experience	James Merit Stuckey	Gough's adjective checklist applied to teacher participants in OB during summer 1970
"Centre Creek: An In-Service Report"	Sveinn A. Thorvaldson	base expectancy scores for recidivism related to an OB-type program called DASH
"The Boulder Bay Experiment"	Sveinn A. Thorvaldson and Malcolm A. Matheson	recidivism
"Spiritual Values in Wilderness"	Dr. William Unsoeld	theology
"Evaluation Report: Outward Bound Pilot Project"	Richard Weider	effects of OB on six drop-outs with behavior problems
Program Objectives: Upward Bound, 73-74 Program	Wesleyan University	place of OB in UB program in providing motivation requisite to learning
"Influence of Outward Bound school experience on the self-concept of adolescent boys"	Reagh C. Wetmore	as in title
"What a Small Boy and a Hammer Have to Do With Evaluative Research"	Karl R. White	evaluation design

Type of Study	Type of Course	Assessment	Included - Not Included
empirical study employing psychological measures	DOBC and COBS	empirical contribution hampered by lack of thoughtfulness; results uninterpretable	not included
empirical study employing recidivism rates as measured by BES	OB-type program called DASH	confused; effects of OB cannot be disentangled from effects of selection instrument	not included
statistical study employing matched samples	correctional camp organized along OB lines (Boulder Bay)	fair	included
reflective	--	witty; a plea for experiencing the mystery and power of the wilderness	not included
empirical study employing psychological measures	NCOBS course	fair	included
report	21-day OB course	interesting	included
empirical study employing psychological measures	HIOBS 26-day courses	good	included
synthesizing study	--	acceptable	included

Title	Author(s)	Topic
"Homeward Bound: An Alternative to the Institutionalization of Adjudicated Juvenile Offenders"	Herb C. Willman, Jr. and Ron Y. R. Chun	Massachusetts Dept. of Youth Services OB Program studied in terms of recidivism and student characteristics
The Effects of an Outward Bound School Experience on Levels of Moral Judgment and Self-Concept	Philip A. Winkie	moral development

Type of Study	Type of Course	Assessment	Included - Not Included
quasi-experimental study employing assignment of subjects	Homeward Bound (Youth Services OB program)	acceptable	included
empirical study employing psychological measures	HIOBS 26-day course H-59	weak, disconnected, and undistinguished	not included

SECTION II

PRESENTATION OF FINDINGS AND ISSUES

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Introduction

The purpose of this section is to acquaint, to entice, and to provide access; but not to deliver definitive statements. In this section the reader will find the most specific discussion of what we know about Outward Bound and what has been thought about Outward Bound; still, this is not the final word. Having made a statement of purpose and having disavowed the finality of what follows, we turn our attention to the organization of this section since its presentation is the most complex in this volume.

"Findings" and "issues" are intuitively understandable as guidelines for organization. We can appreciate the desire to get to the bottom line of the studies outlined in the first section and, having read the conclusions, to back up to the points which require further explanation, explication, and thought. We should keep these two words, "findings" and "issues," in mind while we make some further distinctions necessary for an orderly discussion.

It would be useful at this point to distinguish among types and classes of studies. That is, we must distinguish between so-called empirical studies and all other types for the simple reason that the findings of the former can be presented in a tight, tabular format since the studies themselves are usually highly structured and follow a pattern of presenting in logical order the purpose of the study, the major questions of the study, the subjects of the study, the central variables of the study, the research instruments employed, and the findings. Other studies, because of their less formal nature, require more discursive treatment or, if you will, more words. Thus, to begin, we shall present empirical studies in tabular form with the following table headings:

- study reference
- topic or research questions
- type of course
- research subjects
- research design
- outcome variables
- research instruments
- findings

The reader who has studied Section I will note some overlap between the entries in the tabular presentation there and the tabular presentation here. This repetition is warranted. It allows the reader to examine findings and have immediate reference to several other aspects of the study without having to flip back and forth between tables. Wherever possible, the entries which do overlap have been given more specific treatment in this section.

For these empirical studies, as well as for the various other types of studies, including administrative, conceptual, and design studies, there remain issues and special topics which require prose discussion. Therefore, in the second part of this section, we shall take up other aspects of the empirical studies and make reference to the other studies classified "included" in the tabular presentation in Section I. Specifically, in the second part, we shall address the following:

- Research design
  - ideal research design
  - attrition
  - implementation

Theory

- theory and background of Outward Bound
- educational issues

Special Outward Bound topics

- Outward Bound instructors
- recognition of accomplishment
- cost
- decision-making in Outward Bound

Conclusions

- the implications of findings: recommendations, suggestions for research, comments, interpretations, observations
- evaluations of Outward Bound: courses, instructors, course components, participants

Thus, this discursive part of Section II contains all of the studies "included" for close review. The other studies, while inappropriate for inclusion here, bear some discussion. This discussion constitutes the third part of and concludes this section.

Review of Empirical Studies

Tabular Presentation

The review of empirical studies follows in tabular form. The reader will note that all references are to the summaries in Section III. The reader should note, further, that the table headings allow one to group studies by highly relevant characteristics. One can, for example, use the second heading, "Topic or Research Question," to group studies by the central question they pose; alternatively, using the several other headings, studies can be grouped by the similarity or dissimilarity of Outward Bound course, research subjects, research design, or research instruments. Of course, by referring back to the entries in these categories, one can gain a better sense of the findings.

Additional comments follow the tabular presentation.

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Study Reference	Topic or Research Questions	Type of Course	Research Subjects
Baer, et al., n.d.	to evaluate the relationship between instructors' ratings of delinquents during a short-term survival course and subsequent recidivism within a five-year period	26-day OB course at COBS, MOBS, and HIOBS in Summer 1966	60 male delinquents, 15.5 to 17.5 years of age
Barter, n.d.	to validate assumptions about growth and change in self-image as result of OB participation; to define area of self-image affected by OB	26-day OB course at COBS	207 males
Borstelmann, n.d.	preliminary effort at standardized evaluation	26-day OB course at NCOBS	students of NC-17 15 to 23 years of age

Research Design	Outcome Variables	Research Instruments	Findings
subjects assigned to one of nine patrols, each having ten participants including non-delinquents, in a standard 26-day OB course; at end of course students either awarded or not awarded certificate; instructors completed the Instructor Rating Scale for delinquents on their patrol; all subjects paroled and returned to their homes	delinquent identified as recidivist if within the five-year period from parole he was recommitted to a state training school or penal institution either for new adjudicated offense or a parole violation	Instructor Rating Scale (Kelly and Baer, 1968)	while 15 of the 50 (30%) who received the certificate recidivated, 9 of the 10 (90%) of those who did not receive the certificate were recommitted
matched design; pre- and post-OB measures	impulse control, emotional tone, body and self-image, social relations, morals, sexual attitudes, family relations, external mastery, vocational and educational goals, psychopathology, and superior adjustment	Adolescent Self-Image Questionnaire (Offer and Salushin, 1963)	consistent decrease in mean score between pre- and post-COBS questionnaire on all eleven scale outcome measures; adolescent self-image decreased as a result of OB
pre-post administration of scale items	self-determination and values	measures dealing with values, self-determination, and personal traits	students reduced belief in externally controlled outcomes; students and staff evidenced strong agreement about values of lesser importance; those rated as achieving most in the course had initial priorities closer to staff in highly relevant respects

Study Reference	Topic or Research Questions	Type of Course	Research Subjects
Clifford and Clifford, 1967	to assess effects of one month of survival training on self-concepts	26-day course at COBS	26 adolescent boys 16 to 21 years of age
Collingwood, n.d.	to study the effectiveness of staff, program, and organizational processes	Camp Challenge, a derivative of OB, lasting three weeks	21 boys (19 completing course) 15 to 18 years of age
Cytrynbaum and Ken, 1975	to identify, design, and assess the utility of various evaluative instruments; to carry out preliminary evaluation	Connecticut Wilderness School Experience, a derivative of OB	49 Wilderness students of varying ages and a separate group of 54 comparable subjects

Research Design	Outcome Variables	Research Instruments	Findings
tests given to boys once shortly after they arrived at school, before they started training, and just prior to departure at end of month; counsellor ratings at end of month	scale items	Self-Rating Scale (Dickey, 1958, 1961): Self-Description Scale (Dickey, 1958); Ideal Description Scale; and Word Meaning Test (Osgood, 1957, Clifford, 1965)	bulk of change in self-concept accounted for by boys with relatively poorer mutual self-ratings; boys rate ideal self more positively than themselves; counsellors' ratings parallel those of the boys', overall, the boys viewed themselves more positively
pre-post measurements	physical fitness and scale items	Kraus-Weber physical fitness series; Body Attitude Scale (Osgood, Suci, and Tannenbaum, 1957); Bills Index of Adjustment and Values (Bills, Vance and McLean, 1951); Internal-External Scale (Rotter, 1966): Jesness Inventory; Deveraux Adolescent Behavior Rating Scale; Behavioral Problem Checklist; Camp Opinion Questionnaire; Camp Perception Scale (Bavley, 1971); and Program Assessment Questionnaire	various aspects of scale ratings increased (see pages 27 and 28 of author's summary); participants demonstrated increase in positive physical functioning; counsellors rated participants as having changed positively in many respects; participants viewed camp experience positively
measures repeated at designated intervals on Wilderness students	among others likeability, defiance, anxiety, learning difficulty, and responsibility; also, arrests and legal difficulties, drug and alcohol abuse, and dependency on welfare institutions	Background Information and Social History Questionnaire (see Cytrynbaum, et al., 1975 and Kelly and Baer, 1968); Semantic Differential, modified; Behavior Rating Scale (Borgatta and Fanshel, 1965); and Outcome Questionnaire (Ciarlo, et al., 1974)	results "disappointing," that is, few statistically significant results; various scale and recidivism items significant; also drug and motivational dependency items (see pages 16 ff. of the authors' summary)

Study Reference	Topic or Research Questions	Type of Course	Research Subjects
Fletcher, 1970	to review ways in which OB training is applied and to ascertain its effects on participants and its relevance to education and industrial training	various OB courses	various
Hawkes, et al., 1969	report on an OB experience for educators	special course consisting of survival training, hikes, rafting trips, peak climbs, a 3-day solo, and a 3-day urban experience	25 teachers in COBS course and 9 teachers in DOBC course who were interviewed and 34 who responded to questionnaires
Heaps and Thorstenson, n.d.	permanence of changes in self-concept	OB-type survival course at Brigham Young University	21 students, 7 male and 14 female
Johnson, 1972	assessment of program inputs to personal growth, social functions, and physical functioning	Adventure Plus (Boys' Club) and Wilderness Encounter (Boy Scouts)	--

Research Design	Outcome Variables	Research Instruments	Findings
various	various	various	because this is a review of several empirical studies, the reader is referred to the following pages in the author's summaries for findings: 14, 15, 19-20, 30-31, 40-41, and 60 ff. for an overview of findings
eclectic	various	daily journals kept by participating teachers; course papers; interviews and questionnaires; and observation	many teachers developed a greater sense of self-confidence, became more empathetic with students, more interested in tailoring courses to students, more willing to give students more independence, became less concerned with traditional school regulations, remained strict about students' responsibilities and measuring up to challenges
one-year follow-up consisting of before, immediately after, and one year after measurements	permanence of recorded changes	counselling in form of the Tennessee Self-Concept Scale (Fitts, 1965)	positive change in self and behavioral evaluations were maintained one year following participating in survival training; however, during the first several months after their participation, some students experienced a significant drop in psychological and social functioning
testing and measurements before, during, and after participation in the programs	various psychological, physical, and social measures	Cattell's 16 PF, forms A and B; Cooper's 1 1/2 mile run; sociograms; relationship questionnaire; and general questionnaire	over 50% of participants feel their confidence and initiative increased; participants had a higher percentage of stronger and more meaningful relationships at the end of the program

Study Reference	Topic or Research Questions	Type of Course	Research Subjects
Katz and Kolb, n.d.	to obtain more complete and conclusive evidence that OB reduces recidivism in adolescent boys committed to a correctional authority	OB course	delinquent male youths
Kelly and Baer, 1968	full report of a demonstration project to determine whether or not OB is more effective than training schools	OB courses at various schools	120 adolescent delinquent boys, 15.6 and older, 60 of whom attended OB schools and 60 of whom were treated in a routine manner by a juvenile correctional authority
Kelly and Baer, 1971	[see Kelly and Baer, 1968]	--	--
Koepke, 1973	to determine if participation in a physically and psychologically stressful experience had any effect upon anxiety and self-concept; emphasis on male-female differences	COBS course C-104	33 male and 11 female participants
Linder and Linder, 1971	to assess formally and systematically the impact of an OB experience on students	MOBS course	self-selected

Research Design	Outcome Variables	Research Instruments	Findings
participant observation	various	tape recordings of interview observations and a daily journal	self-confrontation is a major technique; a wide range of individual response is acceptable; staff is critical to the success of OB; criteria of success are ambiguous and individualized; certain qualities of OB make it particularly difficult for urban juvenile delinquents to change as a result of the program
as in "Research Subjects," with the proviso that OB would place one delinquent boy in each brigade of twelve boys; tests administered before and after OB; and recidivism measured nine months after OB	recidivism, defined as return to a juvenile institution for violation of parole or commitment to an adult institution for a new offense	Jesness Inventory (Jesness, 1967); Semantic Differential (Osgood, 1957); and Standardized IQ test	subjects who were treated in a routine manner had a greater percentage of recidivism than those who attended OB; no differences found on Jesness Inventory, nor Semantic Differential for the two groups; IQ not related to recidivism
--	--	--	--
before-after	real and ideal self-concept; anxiety levels	23 scales of Gough Adjective Check List; state and trait scales of the State-Trait Anxiety Inventory	following the OB course, participants ascribed significantly fewer unfavorable adjectives to their real selves, etc. (see pages 52 ff. and 79 ff. of the author's summary)
pre-post design	psychological personality traits	Personality Research Form (Jackson,1967); Acceptance of Self and Others (Berger, 1952); and Personal Orientation Scale (Schopler, 1971)	most students in most courses achieved a gain in self-acceptance; there were no consistent sex differences

Study Reference	Topic or Research Questions	Type of Course	Research Subjects
Nye, 1975	to determine what effects, if any, an OB program had on participants' self-concepts and, if there were a change in self-concept, how durable that change would be	NCOBS 24-day coeducational course	84 subjects, 38 males, 46 females, 16.6 to 23.5 years
Philips, 1970	to identify factors which may have contributed to failure of 24 students (coming from Upward Bound) in an OB course	NC-12	dropouts from Outward Bound
Schulze, n.d.	review of implementation of OB in 12 high schools	26-day OB summer course; Oufsteyer's Mountaineering Club (formed to introduce OB concepts at student level); classroom curriculum employing experiential OB concepts; and service (in OB sense)	OB and other participants
Schulze, 1970	"evaluation" of four OB courses	DOBS; program for high school students emphasizing winter survival and wilderness solo; wilderness experience and an urban solo; and wilderness experiences and sea experiences	various (29 interviewed; 35 responded to questionnaires)

Research Design	Outcome Variables	Research Instruments	Findings
test-retest employing comparison groups (before, after, 3 months)	aspects of self-concept	Tennessee Self Concept Scale (Fitts, 1965), Counselling Form	self-concept increased significantly and, three months later, scores still differed significantly from those on pre-test; there were few male-female differences; instructor evaluations did not correlate with TSCS scores
ex post facto design	background variables, ego strength indicators, and indicators of inner controls	author interviews	OB may not be appropriate for poor city students for a number of reasons
observation	impact on curriculum	observation; discussions with administrators, teachers, students, parents, and OB directors and staff	students and teachers related to each other in more understanding and tolerant ways; climate of school improved; educators appreciated value of experience in academic curriculum
interview study	perceptions of course, effects of the course, other participants, and value of the course	questionnaire and personal interview with students; discussions with members of the OB staff	real stress was caused by people living together in harsh environment; stress was valuable in causing the participants to examine themselves; mixture of participants was valuable; sense of mutual dependence and trust was a high point of the experience; most highlighted sense of accomplishment; the urban solo was most enlightening; many found they wrote more on solo than in their classes at school

Study Reference	Topic or Research Questions	Type of Course	Research Subjects
Smith, 1971	to answer questions of whether or not an intense 3-week experience in the wilderness can cause change in selected factors of personality and whether behavioral changes will result	Churchill Challenge -- 21-day OB course	50 juniors (16 and 17 years of age) and 6 faculty members of Churchill High School
Smith, et al., 1975	to provide a definitive empirical demonstration of the effects of OB	COBS course	population pool of 620 subjects assigned to one of three summer courses
Thorvaldson and Matheson, n.d.	to test the effectiveness of the Boulder Bay Camp against a conventional program for young, male first offenders	OB-type program called DASH	22 subjects, half assigned to Boulder Bay, the other half to Haney Correctional Centre, a medium security institution
Weider, 1975-76	effects of OB on six dropouts with behavior and school problems	standard NCOBS course	6 teenage youths, half school dropouts, half having behavior problems and school
Wetmore, 1972	to determine degree to which change in self-concept of adolescent boys is influenced by OB and is related to differences in age, socioeconomic status, race, education, residential location, sports background, and OB course	HIOBS 26-day course	boys (272), age 15.5 years to 19.5 years, accepted for admission at HIOBS

Research Design	Outcome Variables	Research Instruments	Findings
before-after (one week before, seven and one-half months after)	aspects of self-concept, grade point average, daily attendance, and single period attendance	Gough's Adjective Check List and Cattell's 16 PF Questionnaire, Forms A and B; and teacher ratings	no significant differences found
interrupted time series design and participant observation	self-esteem, self-awareness, self-assertion, and acceptance of others	psychological scales	OB has positive impact on self-assertion; variable evidence exists for positive impact on self-esteem; weak and partial evidence exists for positive effects on acceptance of others; no evidence for positive impact on self-awareness
matched samples	violations of the law as measured by parole board action or new conviction	file data	OB-type group had more nonviolators; of those who violated the law, fewer committed a major violation
chose 6 students with lowest scores on the inventory administered; administered inventory before OB course, upon return from the course, and six months following the course	psychological adjustment; self-esteem	Coopersmith Self-Esteem Inventory; background interview with parents; observations	no significant change in test scores until second post-test; increase in self-esteem strongly indicated in improved home and school relationships
before, after, later (first and last days of course and six months later)	self-concept; appraisal of program; instructors' ratings	Tennessee Self-Concept Scale; Student Critiques; Osgood Semantic Differential employed by instructors	boys evidenced distinct positive statistically significant change in self-concept while in attendance; decreased after return home; no statistical relationship of observed differences and background; students responded favorably to the program

Study Reference	Topic or Research Questions	Type of Course	Research Subjects
Willman and Chun, 1973	Massachusetts Dept. of Youth Services OB Program studied in terms of recidivism and student characteristics	Homeward Bound (Youth Services OB Program in two phases, 6 weeks in duration)	court-processed delinquents

Research Design	Outcome Variables	Research Instruments	Findings
quasi-experimental employing assignment of subjects; 14-month follow-up	recidivism	file data	20.8% of Homeward Bound group recidivated as opposed to 42.7% of control group; recidivists among Homeward Bound participants did so later than Lyman students; success in Homeward Bound was positively related to age and highest grade in school; marital status of parents affected success or failure in Homeward Bound; success related to type of problem--assault against persons and larceny more apt to experience success; "stubborn child" likely to experience failure

Brief Comments on Tabular Presentation of Empirical Studies

In commenting briefly on the foregoing tabular presentation of empirical studies I would make the following three important points:

1. Findings with regard to improved self-concept are less firmly established than one would have thought. That is, there are many studies on this topic, and whether they go under the title of self-concept, self-esteem, or self-efficacy, they all address, in one way or another, how the individual participant relates to himself or herself rather than to others. For present purposes, we will allow that these myriad distinctions do fall within the general category of an individual relating to himself (or to part of himself), and that the sheer number of studies should add up to weighty results. On the contrary, the results are mixed, flawed, and confused. They include the finding that Outward Bound has negative impact on self-concept (Baxter, n.d.); they are flawed by failure to take account of the starting points of the individual's relationship to himself (Borstelmann, n.d.; and Clifford and Clifford, 1967); and they are confused by virtue of being only partially confirmed by various tests and procedures (Collingwood, n.d.; some of the results presented by Cytrynbaum and Ken, 1975; and Smith, et al., 1975). Then there is a study which provides the middle position -- virtually no significant differences where others found differences using the same research instruments (Smith, 1971). In some instances the hypotheses are stated in a strange way (for example, Johnson, 1972, where the hypotheses are stated in terms of results being significant if more than 50 percent of the subjects react in the predicted direction). Other studies suggest that time may be a critical variable in determining whether or not a change in self-concept could have taken place (Weider, 1975-76; and Wetmore, 1972).

More studies of self-concept are not indicated. I believe that the studies included here (which are the better studies judged by conventional academic standards) do not suggest consistent, stable, replicated results with regard to the effect of Outward Bound on self-concept.

2. Study results on the effects of Outward Bound on recidivism seem generally consistent. That is, Outward Bound has been shown to reduce the rate of recidivism among youthful offenders (Baer, et al., n.d.; Kelly and Baer, 1968; Thorvaldson and Matheson, n.d.; and Willman and Chun, 1973). Even after making allowances for methodological flaws, Outward Bound seems worthy of the label "strong stimulus," to employ a term used among methodologists. Whether or not this strength generalizes to other desired outcomes may be problematic; however, concerning the effects of Outward Bound on recidivism, positive evidence seems to be mounting, though it is by no means conclusive.

3. It is interesting that studies employing weaker methodologies result in profuse findings (see, for example, Hawkes, et al., 1969; Katz and Kolb, n.d.; and Schulze, 1970). Social scientists are often on the lookout for artifacts which are the result of the methods they employ, and I would suggest that such artifactual results may be present among the studies of Outward Bound.

Sampling of Issues

The purpose of this and the next part of Section II is to provide a sampling of issues with brief commentary and selected references. As stated previously, the goal is not to realize a definitive statement but to familiarize the reader with the literature by presenting some issues and observations. This review of the literature provides a perspective different from that employed in other sections of the volume. It represents an abstraction of high points rather than an overview of studies.

Research Design

In reading the studies of Outward Bound and the summaries of those studies, it is useful to keep in mind several issues of research design, namely, ideal research design, attrition, and problems in implementation. These topics are not peculiar to studies of Outward Bound. On the contrary, they plague every piece of empirical research and rightfully deserve continuing attention.

Ideal research design. There are references in the literature to problems of employing certain research designs in a study of Outward Bound (see, for example, Greentree, III, 1975, pp. 72-73). The problems include difficulties of forming and maintaining adequate control groups; the problematic nature of questionnaires; the definition of goals of the program; etc. In reaction, there has been an attempt to define the ideal study (Smith, et al., 1973), an exercise which is inherently useful and which, in this case, was carried out very nicely. Indeed, this approach to the problems of design in Outward Bound research is many times more useful than a more general discussion of approaches (see White, n.d.). A next step might be a reformulation of the work of Smith, et al. given their own experience in trying to carry out the design in an assessment of Outward Bound through use of time series design and participant observation (Smith, et al., 1975).

Attrition. The references to problems of maintaining study samples are too numerous to list. Rather, the point should be made that attrition can be expected to plague empirical studies, especially those employing follow-up. It may be useful to consider how attrition might be counteracted in studies of Outward Bound, that is, whether or not there are techniques which might take their cue from the organization of Outward Bound or from its potential or actual relationship with schools. In any case, the reader will not find a separate discussion of attrition and such a discussion, practical in orientation and in detail, would be useful.

Implementation. In the realm of policy analysis, implementation holds a special place since it represents concern with the actuality of program (or study). In research circles, one more often finds use of the term "limitations." That implementation is a problem is not the issue. The issue is how to deal with the problem, especially when evaluation or study of Outward Bound is an afterthought, or when the program is taken out of its normal confines and implemented in a school or some other institution with its own integrity. The references are more numerous than one would like. Perhaps the reader should be referred to Leaf (n.d.), especially pages 3-4, to gain an acute sense of the problem.

Theory

One of the more hotly debated issues in the social sciences revolves about the questions of what is theory and what are its issues.

I prefer not to join the debate, but to point out that under the broad canopy of theory we can usefully place several topics which deserve attention. These include theorizing on Outward Bound, which itself often includes discussion of the background of Outward Bound, and the relationship between educational issues and the Outward Bound experience.

Theory and background of Outward Bound. There is much theorizing about Outward Bound (among others, Baer, n.d.; Bernstein, 1972; Leaf, n.d.; Cytrynbaum and Ken; Medrick, n.d.; Nold and Wilpers, 1957; Report on the Practicum in Outward Bound, 1968; Kesselheim, 1974; Rhoades, 1972; and Jerstad and Stelzer, 1973). While not agreeing on all points (and not agreeing on the emphasis of points), these treatments of Outward Bound pay close attention to the pedagogy of Outward Bound (which they sometimes mistake for its theory); to the place in which Outward Bound takes place; and to the importance of the group in the experience (and as a corollary, the importance of the instructor). Another way to state these concerns is to say that they have focused by and large on what takes place in Outward Bound and not what occurs after (and/or before). Perhaps Rhoades is the most attentive to this problem which leads him to concerns for follow-up. What may be indicated for future theoretical work is broader theorizing on the nature of Outward Bound (it is, among other things, an overstimulating experience) and the nature of its impact after the course is completed (how the unsettling does or does not deflect the individual toward new or modified activities). There is no existing treatise so fully and eminently theoretical on the nature of Outward Bound that could not be improved upon substantially by asking broad and searching questions of Outward Bound at levels of abstraction beyond those of program, place, and rhetoric.

Educational issues. It is interesting to note that there are few treatments of Outward Bound as an alternative pedagogy. For one, Outward Bound has restricted itself by and large to brief time spans and has thus avoided the single most problematic characteristic of educational institutions--their interminable relationship with the individual student.

The few references to educational issues in the literature, then, deserve reflection. Copp, et al. (n.d.) point out that they "...question very seriously an approach which seems so oriented to the concerns of the present, so hostile to academic pursuit and so disinterested in intellectual and cultural heritage" (p. 76). The anti-intellectual bias attributed to Outward Bound may be overstated and itself indicative of a narrow sense of what constitutes learning, but the statement serves to point out several major differences in emphasis between Outward Bound and other educational institutions and the need to consider Outward Bound from the point of view of the education it provides. By implication, the work of Harmon (1974) deserves careful review for its treatment of affective education in the context of Outward Bound. Also valuable is Ismail's study (1966) which concluded: "A well-organized physical education program has no effect on IQ scores. However, it has a favorable effect on academic achievement scores" (p. 10). Some might not have entertained a possible relationship between physical education and increase in IQ in the first place, yet there is a school of psychological work which continues to maintain that such a relationship does exist and can be capitalized upon, among other things, to reverse so-called "decrement" effects. That aside, the issue for Outward Bound is what follows from Ismail's broad-gauged finding.

Special Outward Bound Topics

The choice of category--special Outward Bound Topics--is a conscious one, one intended to convey that the research literature has spent little on Outward Bound topics and much on discipline issues. Almost in vain one searches for treatment of instructors, recognition of accomplishment in Outward Bound courses, cost, decision-making in Outward Bound, and course components. These topics sound different and are different from the topics of administrative and overall evaluation, effects on self-concept, and relationship to corrections. It is, therefore, most important that these topics of significance to the administrators of Outward Bound receive attention.

Outward Bound instructors. Some argue that the wilderness is the instructor (for example, Bernstein, 1972); others that the staff is critical to Outward Bound (see, for example, Kelly and Baer, 1968, p. 129). Researchers have used instructors as criteria measures against which they compare their test results. Program implementors have, in some instances, emphasized the functional skills of instructors as opposed to social skills (see Collingwood, n.d., p. 9). Very much needed is a study of instructors and a new recognition of the need to pay closer attention to instructors in studies involving more widely ranging topics. For we still know very little about Outward Bound instructors and how critical (or not) they are to positive Outward Bound experiences.

Recognition of accomplishment. In Baer, et al.'s study of youthful offenders (Baer, et al., n.d.), the recognition of accomplishment in an Outward Bound program was the cornerstone of the motivational mechanisms employed. In other studies granting or withholding a certificate or making provision for another form of recognition receives scant attention. As part of paying more attention to the component parts of Outward Bound, there is need to isolate, to the extent possible, the alternatives of recognition accomplishment and their effects.

Cost. Collingwood (n.d.) conducted one of the few studies which comments directly on cost: "The great expense for such total programs as [Outward Bound, Dallas Boys and Girls Adventure Trails]...could make them impractical for many rehabilitation agencies and counselors to use as a Client Service" (p. 3). He went on to estimate the cost of the program he directed at $175. per student. Rather than discuss the accuracy of this figure, the more important point is that there has been virtually no work done on Outward Bound costs because there has been little appreciation of the need to pay attention to course components. The question is not only what results in a course of varying length, but to what extent can we attribute outcomes to specific course (and cost) components (see Johnson, 1972, for a start in this direction). In a time of retrenchment due to inflationary pressures, it is even more urgent to conduct cost studies which will have the sanguine effect of forcing researchers to be more highly analytical about the connections between parts of courses and specified outcomes.

Decision-making in Outward Bound. There is a conspicuous absence of studies of decision-makers in Outward Bound. What does Outward Bound look like from the point of view of the program director? What are the alternatives and how are choices made? What are the issues upon which useful research can be conducted? Similarly, what does Outward Bound look like from the point of view of the national office? What are the policy issues grappled with? What do these administrators want to know that researchers could help to find out? Closer and continuing interaction between administrators and researchers could produce questions and studies useful to both.

Conclusions

In reading findings, one wonders what follows from the findings, what recommendations and suggestions have been made, what comments and interpretations have been offered, and what far-ranging observations have obtained. It is not possible to inventory all these here. But it would be useful in determining where do we go from here, to ask first, what have others said on the same topic. The results fall into several parts, including suggestions for further research (see, for example, Fletcher, 1970, pp. 66 ff; and Heaps and Thorstenson, n.d., p. 6); recommendations on details of programming, especially in an academic setting (see, for example, Hawkes, et al., n.d.; and Schulze, n.d., pp. 115 *inter alia*); and specifications for further work in corrections (Cytrynbaum and Ken, 1973, pp. 32-33). One finds a paucity of references to the suggestions of others in the Outward Bound literature, an oversight which could be costly in time and effort.

Other Observations

In the studies not included in the previous sections of this report, there are several observations of note. Because they range so widely, no attempt has been made to organize them. Rather, they are presented, as follows, as interesting, separate points:

-- Cataldo (n.d.) provides detailed specification of recognition of accomplishment (p. 13); MacArthur and Bergman (n.d.) describe student decision on completing an Outward Bound certificate (p. 8).

-- Elledge (n.d.) makes one of the few references to cost concerns (p. 5).

-- Elliott (n.d.) provides interesting discussion of the positive uses of stress (p. 11).

-- Howe II (1974) presents one of the few discussions of educational issues as they relate to Outward Bound.

-- Lev (1968) compares Outward Bound with American Indian practices with several striking conclusions.

SECTION III

RESEARCH SUMMARIES

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Introduction

The purpose of this section is to provide summaries of studies in a more detailed fashion than a tabular presentation; also to enable the reader to draw conclusions about the studies from a reading of primary source material. Therefore, there are two sets of summaries. The first set consists of remarks and criticisms prepared by Shore. These summaries are based on a close reading of reports and assume reasonable standards of academic performance in assessing the value of the research. The second set consists of material typed verbatim from the research reports. In effect, these quotations provide summaries in the authors' own words. They can be used in conjunction with Shore's summaries or independently to arrive at one's own estimates of the research reports.

Wherever possible, verbatim summaries of research as they appeared in the original reports have been included. Page numbers in the lefthand margin refer to the original volume.

Summaries by Shore

Adventure Curriculum: Physical Education

Summary

This booklet reports on a physical education curriculum designed under an ESEA Title III Project at Hamilton-Wenham Regional High School in Hamilton, Massachusetts. It represents an effort to translate aspects of Outward Bound into the ongoing curriculum of a public school.

As a statement of how to build an Outward Bound setup it is a good report. However, it is not a statement of curriculum and, most importantly, because the authors of the report have not told us why certain activities are suggested and not others, and whether or not these activities are modified or adopted intact, the report suffers and we lose an opportunity to understand how adapted programs are considered and decided upon.

Daniel J. Baer, Peter J. Jacobs, and Francis E. Carr, "Instructors' ratings of delinquents after Outward Bound survival training and subsequent recidivism." Unpublished paper, 16 pages, n.d.

Summary

Baer, Jacobs, and Carr conducted a five-year follow-up study of youths committed to the Massachusetts Division of Youth Services in Spring 1966 who subsequently participated in a 26-day Outward Bound course at COBS, MOBS, and HIOBS during Summer 1966. The researchers utilized two sources of data: Instructor Rating Scales, a form of semantic differential scaling employing forty opposing adjective pairs on a five-point scale; and records of recidivism obtained from the Division of Youth Services. They found that the award of an Outward Bound certificate was associated with recidivism. Of those who received the certificate, 30 percent recidivated; of those who did not receive the certificate, 90 percent recidivated.

From the Instructor Rating Scale replies, the researchers determined that there were six underlying factors--maturity, extroversion, leadership, confidence, effort, and physical ability. All six factors were related to the award of the certificate; and three factors (maturity, leadership, and effort) were related to recidivism.

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James T. Barter,
"The Effect of the Outward Bound Experience Upon the Self-Image of Adolescent Boys." Preliminary draft, 8 pages.

Summary

Barter reports one of the few studies which indicates negative effects of Outward Bound on aspects of self-image. Utilizing the Adolescent Self-Image Questionnaire which includes some eleven scales, he administered the battery of test items to 207 boys before and after they experienced Outward Bound. He found decreases in scores, indicating decrease in adjustment; four of these decreases were statistically significant, including Body and Self Image, Emotional Tone, Sexual Attitude, and Psychopathology. There were no significant differences by type of camp (mobile or set). Barter offers interesting speculation on the findings, but, as in other studies, the selection among scale items for dimensions related to Outward Bound is not made in advance, and the direction of expected relationship is not stated, although it is usually assumed to be positive.

Arthur Bernstein,
"Wilderness as a Therapeutic Behavior Setting," Therapeutic Recreation Journal (Fourth Quarter, 1972), 160-161, 185.

Summary

Bernstein argues that the wilderness provides a setting where coping behavior is evoked over defensive behavior. In this setting, where patient and wilderness staff member are dependent upon each other, social functioning should improve to the point where behavior modification techniques can be applied. Not only will the wilderness setting help promote constructive and adaptive reactions, but the nature of the wilderness groups and the skills enhanced by wilderness training might further reinforce behavior modification.

The arguments presented in this brief paper are intriguing, but overdrawn. For example, "In areas of extremely limiting topography, it is impossible to impose the strong social controls which are necessary in an urban environment. This is undoubtedly why there are no large cities on mountain summits" (pp. 160-61). Bernstein draws together various theoretical points a bit too tightly, but has little to say about how to change or alter Outward Bound training to gain the ends he seeks.

Samuel Bernstein,
The Relationship of Antecedent Variables and Process Variables to Differential Outcome in a Stress-Challenge Program. 1973.
Unpublished dissertation, Southern Illinois University.

Summary

Bernstein studied twenty-four delinquent boys ages 12-16 who participated in a 20-day stress-challenge program; seventeen of the youths were white, seven black. All were under the supervision of the St. Louis County Juvenile Court. The purpose of the study was to determine which antecedent and processural variables are related to positive and negative program-related outcomes for individuals. Bernstein employed such measures as the Tennessee Self-Concept Scale (which provides data on self-concept), the Jesness Inventory (which discriminates delinquent from non-delinquent youths), the Jessor Expectancy Scales (which measure self-expectations projected into the future), the Barrett-Lennard Relationship Inventory (which measures the relationship of the participant to the trainer), the Jesness Behavior Checklist (which records social and interaction behaviors), and the Modified Tennessee Scale (which measures perceptions of the participant by others). He related these measures of the independent, or antecedent variables, to a constructed dependent variable based on whether or not the individual experienced high or low "gain" as a result of participating in the Stress-Challenge Program. In describing the findings, Bernstein organized discussion around three major questions:

1. Are there relationships among variables that may help in the prediction of successful program outcome? Utilizing the JES and the JI, he found no statistically significant relationships.
2. Are there differences between groups which showed an increase

on self-report measures and groups which showed a decrease? Bernstein found that the high gainers were significantly lower on pretest scores and perceived trainers less favorably.

3. What are the factors that have significant relationships with other performance indices? For the most part, there were no statistically significant correlations.

The most outstanding finding, that of significant lower initial scores for high gainers, is a statistical artifact, one which has been encountered in several other studies. In addition to this major caveat in interpreting the findings, we should be aware that Bernstein is not clear about the purpose of his analysis. He is intuitively correct in wanting to analyze relationships between program outcomes and other variables; however, in focusing on so-called antecedent, or background variables, he seems to imply that he will analyze individuals, not groups, where, in fact, he studied the latter, not the former. Further, it is one thing to find relationships among variables and quite another to know what to make of them. I doubt very much whether a program officer would deny entrance of a delinquent to a program because the individual is, say, not asocial, and the data indicate that asocial delinquents gain the most from participation in stress-challenge programs. More thought should have been given to the implied claims of the approach, to the general form of analysis, and to the potential usefulness of the results.

L. J. Borstelmann,
"Psychological Readiness for and Change Associated with the Outward Bound Program: North Carolina Outward Bound School." Mimeographed, 8 pages plus a table.

Summary

Borstelmann singled out two major complexes, one dealing with values, the other with self-determination, and carried out empirical assessments on students and their Outward Bound instructors to "determine how instructors relate to students along these dimensions and how students relate to the basic values of instructors and the overriding programmatic concern for increasing self-determination. Borstelmann found that, using Rotter's locus of control measure, staff and participant scores moved closer together with time. Using Rokeach Survey of Values, he found that instructors were closer to some students than to others (in the paper these students are termed Class A), and therefore there was an easier bond to be developed between some of the students and instructors. However, students and instructors did not move closer together on basic values with time.

This brief research report is highly suggestive and highly tentative. The effort to relate self concepts in an analytic fashion to a most important aspect of programming--the instructors--is most laudable.

Charles Cataldo,
"Modified Outward Bound Club: A Therapeutic Endeavor for Action Oriented Youths." Unpublished paper, mimeographed.

Summary

This participant-observation study was guided by the hypothesis that "...the majority of youths on the trip will make some effort to maintain these new actions [gained as a result of participating in the trip] in the face of relating to those with whom they had conflicted in the past" (p. 1). Based on a sample of six youths and a comparison group of roughly equal size, Cataldo found major positive changes in four of the six youths. He also found that a supportive environment helped to maintain the "new actions" the youths acquired in their Outward Bound experience.

The study is seriously flawed by its loose organization and overuse of jargon (contextual analysis vs. ecological analysis, biosphere, impactful actions). Even the appropriate and fitting social work concepts of case movement and critical incidents are poorly utilized in the analysis of data. The notion of theory is totally confused with administrative caveat. It is clear, nonetheless, that Cataldo observed major changes in a majority (that is, in four) of the youths participating in the program. Some of the data supporting his conclusions are neatly organized in tables at the end of the report.

Charles Cataldo,
"Modified Outward Bound Project." Unpublished paper, mimeographed, 32 pages.

Summary

The memo accompanying the document (also written by Cataldo) describes it as an "evaluatory monograph [which] validates the experiment [of youths being able to give up drugs and cope with stresses they could not handle] and indicates that some troubled adolescents can be intrigued by the high adventure, engaged by the challenge for survival and can learn new skills and techniques by the supportive system of rewards." The basis for these conclusions is a discursive, highly-detailed description of camping activities interspersed with some case material interpreted in strict Freudian terms.

The study is hardly an evaluation, even a preliminary one. The contrast of institutional living and the Dix Wilderness presented early in the monograph could have served as a basis for establishing evaluative criteria; however, the author opted for description, not analysis. The author's conclusions outlined above are supported by his observations, but they are lacking systematic support and analysis. Even the discussion of the usefulness of the point system is uneven and incomplete. The case material is fragmentary; and the psychological interpretation of the descriptive data is more than those data can bear.

Edward Clifford and Miriam Clifford,
"Self-concepts before and after survival training." *British Journal of Social and Clinical Psychology*, 6 (1967), 241-248.

Summary

Clifford and Clifford studied thirty-six boys between the ages of 16 and 21 at COBS to determine whether or not survival training has a positive effect on their self-concepts. Upon entering the school and at the conclusion of the one-month program, the students were given a battery of tests, including the self-rating scale, the self-description scale, the ideal description scale, and a word meaning test. In addition, counselors rated the students at the end of the program (but not at the outset). The researchers found that self-concept improved for almost all students; however, the improvement was statistically significant only for those students with poorer self-concepts at the start (that is, with scores below the median on the first test wave). Counselors' ratings and the self-administered scale ratings were found to be similar. The semantic differential provided no systematic evidence since only a few scattered scales were significant statistically.

The study provides evidence that self-concept did improve, but its design is flawed. Additional controls are needed for the effects of testing; counselor ratings as they were used in this study are a criterion measure which makes their use more limited than necessary. The argument advanced by the authors that the statistical problem is one of initial rating affecting the second rating is only partially correct; the design considerations are more extensive and perhaps other ways could have been found to control for initial score, including using difference scores as a dependent variable in a regression format so that age and other variables could have been related systematically to observed outcomes.

Thomas R. Collingwood,
"Survival Camping: A Therapeutic Mode for Rehabilitating Problem Youth." Arkansas Rehabilitation Research and Training Center, 53 pages and references, n.d.

Summary

The Arkansas Rehabilitation Service, in cooperation with Aldersgate Methodist Camp of Little Rock and the Arkansas Rehabilitation Research and Training Center mounted and evaluated a less expensive version of Outward Bound for the single purpose of rehabilitating problem youth. This demonstration involved nineteen youths between the ages of 15 and 18 who had between seven and eleven years of school. Thirteen of the youths were white, six were black; most were first offenders.

In mounting the program, staff were chosen primarily for their camping skills and were given training in first aid and interpersonal skills. The staff led four groups, each consisting of five youths and one leader. The three-week course was close in form to that of Outward Bound. For example, the course employed the basic Outward Bound precept of self-discipline as it relates to acquiring and using skills the leaders of Camp Challenge called "functionality." A major difference was the emphasis placed on counselling: at the end of the program there were two days of group counselling (also included were recreation and cleaning of equipment).

The author estimated that the program cost approximately $175 per individual, thus the program was less expensive than Outward Bound. I would comment here that the program was obviously heavily subsidized by the Methodist Camp and by others and that this estimate of cost to the individual is grossly understated for costs projected over the long-term.

To measure impact on the youths, Collingwood employed a number of test batteries and questionnaires with the following results:

1. Physical Fitness
    a. Cardiovascular functioning - improved significantly
    b. power (50-yard dash) - improved significantly
    c. dynamic strength (push-ups, sit-ups) - improved significantly
    d. overall fitness (Kraus-Weber) - improved significantly
    e. body attitude (as measured by the Body Attitude Scale, a type of semantic differential scale) - significant improvement on one of these scales
2. Social and Behavioral Functioning
    a. Bill's Index of Adjustment and Values - significant increase on present self-concept but not on self-acceptance nor on ideal self-concept
    b. Internal-External Scale of Rotter - internal control significantly increased, external control significantly decreased
    c. Jesness Inventory (of traits and behaviors associated with delinquent youth) - autism measure significantly increased
    d. Deveraux Behavior Rating Scale - increased frequency of positive behavior, decreased frequency of negative behavior
    e. Camp Opinion Questionnaire, Camp Perception Scale, Program Assessment Questionnaire - all three yielded generally positive assessment (the last was filled out by the staff)

Arthur Wellington Conquest, III,
"A Winter Mountaineering Program in an Urban High School."
Unpublished paper, mimeographed.

Summary

This is a narrative report on a winter mountaineering program in the Park East High School in New York, a school founded by an independent community corporation based in East Harlem and Yorkville. It is a detailed account of the program's activities and of the students' reactions to it. Strictly speaking, it is not a piece of research since its major purpose is to provide description and administrative evaluation; its conclusions deal with staff and time needed to carry out the program more effectively. Moreover, the report is neither analytic, nor rigorous, nor does it provide systematic conclusions. Yet, it does portray some of the program's activities in great detail and link them to two conclusions which I would state as follows: that physical stress can help students to arrive at creative solutions to their situation, and that the pressure of the group is beneficial and necessary to deal successfully with physical hardship.

Given the dearth of research on the process of Outward Bound programs, it is useful to include Conquest's short piece as a research-like statement on the relationship between program activities, physical stress, group pressure, and creative solutions to physical adversity.

Barry D. Copp, Elizabeth D. Pierson, and Karen Sargent,
"Alternate Semester 1972." Pamphlet.

Summary

The faculty evaluators who wrote this report describe an alternate semester involving forty students, thirty-five from Lincoln-Sudbury and five from Copley Square, in a five-part program consisting of Outward Bound training, ecology studies, an urban and a rural experience, and a building project. Of all of the components, the first, a three-week winter survival course at HIOBS, was considered the most successful.

> Outward Bound was perhaps the most overwhelmingly successful unit. It appears in retrospect to be the one which came closest to meeting its goals of establishing group unity, building individual self-confidence, expanding self-awareness, and encouraging appreciation of the wilderness. In the final evaluation session the students felt unanimously that Outward Bound had been essential to Alternate Semester and the best possible way to begin. There were feelings on the part of some that the course could have been more stressful (although an equal number felt it was sufficiently difficult), that the division into four groups sometimes hindered our single group goal (but no one could see an alternative -- the small group is basic to the Outward Bound way), and that the role of the Lincoln-Sudbury staff was somewhat confusing (it was, but this bothered the staff more than the students). Possibly the most significant thing is that four months later, at the end of the program, the students' feeling about Outward Bound remained extremely strong and many in their final evaluations cited ways in which they felt the Outward Bound experience had influenced them throughout the program and perhaps changed them permanently.

The ecology course was considered to be school as usual; the urban and rural experience and the building project received mixed reviews. Rather than dwell on the evaluation of the other components, it is more useful to consider the mix of program components. The river building unit, the authors point out, could be seen as analogous to expeditions undertaken by Outward Bound students having received basic skill instruction, since this activity came at the end of the course (leaving time for the students to acquire skills applicable directly or indirectly to the project) and since the students were left entirely on their own. The urban experience involved some aspects of survival, thus it, too, had some connection to an Outward Bound course. The rural component was essentially manual labor and the ecology component was essentially academic work. The authors say little about the mix of activities. They do say that the overriding tone of the activities was anti-intellectual, which gave them pause as teachers. Since their report is written so clearly and objectively--it is a pleasure to read and it is highly believable--more in the way of analysis of the interconnection of components would have been welcome.

Solomon Cytrynbaum and Kathy Ken,
"The Connecticut Wilderness Program: A Preliminary Evaluation Report."
Submitted to the State of Connecticut Council on Human Services,
Hartford, Connecticut, June 1975. Unpublished, mimeographed,
34 pages and appendices.

Summary

The Council on Human Services of the State of Connecticut commissioned a study to evaluate the Wilderness School Program in Summer 1974. With only three weeks' notice, Cytrynbaum and Ken mounted a quasi-experimental study of forty-nine wilderness students and a roughly comparable control group of fifty-four students utilizing a background questionnaire, semantic differential ratings, behavior ratings, and an outcome questionnaire. They found "few meaningful and significant changes over time" in analyzing data from the semantic differential scales, and they found "several large and encouraging shifts over time" in analyzing data from the behavior rating scale, including tendencies of participating students toward lower defiance and anxiety. From the outcome questionnaire they determined that students participating in the wilderness program recidivated less, had fewer arrests in the six months following the program, got drunk fewer times, used drugs less, and utilized service agencies less than students in the control group. The authors concluded that "...these preliminary findings do suggest a general trend favoring the students who have had a wilderness experience." Given the qualifications of the authors -- that the evaluation was preliminary and not fully controlled in a statistical sense -- this broad conclusion is still warranted.

The authors offered several suggestions for improving the study design (pp. 32 and 33). In addition to the suggestions they propose, including an increase in the number of study subjects, additional controls for maturational and developmental effects, and adequate lead time, I would recommend that closer attention be paid to tying in theoretical statements, such as those proferred at the outset of the report, with the design and measurement aspects of the study; that once non-significant differences are found, "trends" should not be reported (as in the case of the data from the Semantic Differential Scales); and that more attention be paid in the analysis to background information.

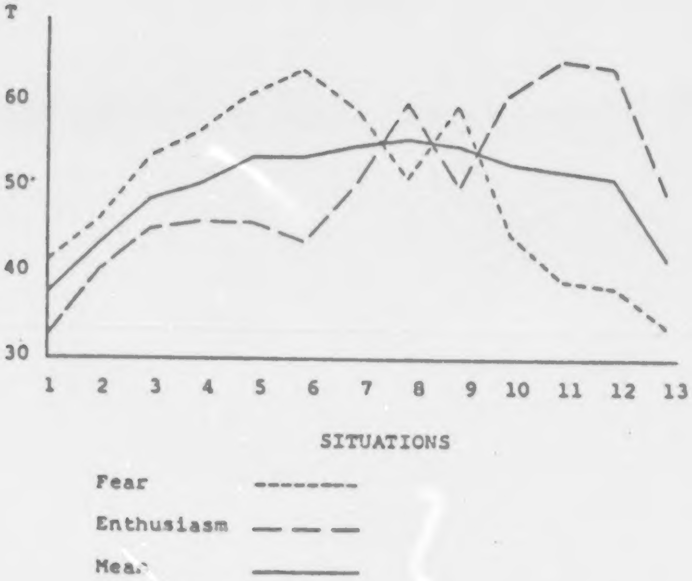
Robert Ward Davis,
The Fear Experience in Rock Climbing and Its Influence Upon Future Self-Actualization. 1972. Unpublished dissertation, University of Southern California.

Summary

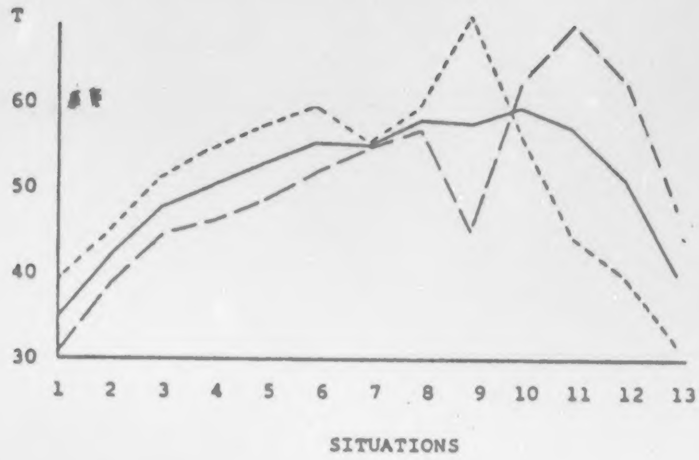
Davis begins his dissertation by citing several cases in which the will to live--better, the will to fight--made the difference between life and death for individuals caught in disaster situations. From this observation he proceeds to ask about the possibly positive effects of fear, specifically, if fear, as experienced in rock climbing, can play a role in increasing self-awareness and self-actualization and if this use of fear can be designed into an educational program. He develops his theoretical base on existential philosophical grounds, starting with an inquiry into the lack of individuality in our society and proceeding through discussions of the nature of sport, fear, self-awareness, and self-actualization. These forays are interesting but unoriginal.

The addition of new knowledge takes the form of a mailed questionnaire which employed a methodology developed by Klausner to assess the relationship between fear and enthusiasm. Some 408 questionnaires, representing a one-third sample from a national listing, were sent to graduates of Outward Bound schools who resided in the Midwest and who had participated during the years 1965-70. On the basis of 116 usable replies out of 150 received he found that fear and enthusiasm were negatively correlated during the climb experience but not before or after. The following graphs depict the relationship clearly.

This work suffers from an overabundance of philosophizing and paucity of synthesizing and distillation. We learn in the end that rock climbing exhibits the same fear-enthusiasm curves as described by Klausner and not much more.



GRAPH 2. Profiles of Fear and Enthusiasm (T-scores) and Their Mean for Rappel Situations



Fear

Enthusiasm

Mean

GRAPH 3. Profiles of Fear and Enthusiasm (T-scores) and Their Mean for Rock Climb Situations

Gerald E. Elledge,
"East High School Senior Seminar: 1973 Evaluation." Denver Public Schools, Denver, Colorado.

Summary

From some 350 applicants to the program, approximately 100 were selected by lottery to participate in the East High School Senior Seminar. The special procedures employed in the lottery assured that approximately one-third would be dropouts or potential dropouts. In 1973, 114 students were enrolled in the program, and ten teachers (five contract, five student) administered the program which cost about $195 per student exclusive of subsistence (which the student provided himself). The program had no apparent effect on dropout rate. In most every respect, the course modules (which are the same as in the 1972 Report) were considered successful.

For our purposes, we should note two points. First, the value of the module most clearly adapted from Outward Bound practices, the Mexico module, was scheduled first in the program because of its presumed value. Second, this report hardly constitutes an evaluation. The analysis, such as it is, is very weak. Indeed, an outside commentator whose remarks appear at the end of the report, states that the program suffered from a lack of clear-stated objectives with regard to each module; clearly-stated objectives would have made evaluation possible and more useful. The lack of clearly-stated objectives aside, the program's evaluations, this and earlier ones, are rather poor and make it virtually impossible to draw useful conclusions about these creative adaptations of Outward Bound principles to a specific purpose--reduction in racial tension--and to specific learning modules.

William Elliot,
"The Respect of Others' Rights is Peace." Unpublished paper,
22 pages and references, n.d.

Summary

Elliot begins with the assertion that Outward Bound can and should serve to build self-confidence, and ends with a plea for better instruction in Outward Bound courses, at least for Outward Bound instructors to be more aware of the Outward Bound situation. The very different starting and ending points indicate something of the looseness of this paper which proceeds from topic to topic--from the relationship between the nature of structure in Outward Bound and its ability to alleviate the effects of poor instruction, to the small groups Outward Bound utilizes to resocialize individuals, to the place of stress in the Outward Bound program and its relation to physical danger and psychological difficulty.

There are some interesting points, but not as many as one would expect from journal observations on Outward Bound.

B. A. Fletcher,
Students of Outward Bound Schools in Great Britain: A Follow-Up Study. 1970. University of Bristol, School of Education.

Summary

The Outward Bound Trust, formed in 1946, commissioned Fletcher to conduct a follow-up, or evaluation, study as part of a more general program of taking stock of Outward Bound. More specifically, the task was defined as determining the effect of training on Outward Bound participants with special attention paid to the relevance of Outward Bound to education and industrial training. Fletcher addressed the first task by reviewing a series of smaller evaluation studies (a few of which were pilot studies) and then by carrying out a larger-scale evaluation.

The following are the titles and findings of the shorter studies reported on:

1. Tosswill Follow-up Studies. Using a questionnaire, Tosswill determined, among other things, that participants most enjoyed the new skills they learned and the companionship they developed; they disliked very little. After the program ended, the students were physically more active (they walked more, for example), and more tolerant.

2. Strutt Follow-up Study. Using eighty-six pairs of girls as subjects, Strutt employed the Sixteen Personality Factors Questionnaire and forms A and B of the Cattell *et al*. inventory and found among other things that the Outward Bound girls were more stable, less aggressive, livelier, less sensitive, more confident, and more dependable than the other girls.

3. Moray School Study. Using a modified Tosswill questionnaire,

3. A. Fletcher

the researcher found among other things, an increase in self-confidence, increased ability to mix with others, to engage more positively in team work, and to understand better the point of view of others.

4. Rhowniar School Study. Some fifty-seven students were studied with a Tosswill type questionnaire. It was found that students enjoyed learning outdoor skills and having the companionship of others; they were more self-confident and professed eagerness to take additional courses.

5. Devon School Study. This was a pilot test of a questionnaire on 800 students. The results indicated that the major objectives of sponsors of students related to general character development. Outcomes included students receiving a sizable number of promotions and receiving greater responsibility in their work tasks. The students reported increased self-confidence, and an ability to mix more easily, along with greater maturing and a greater sense of responsibility.

6. Fletcher's Study. Some 3,000 persons were queried; replies were received from 87 percent of the sponsors and 78 percent of the students. It was found that the sponsors were interested in the program as a source of character training and a builder of maturity. They evaluated the program as successful -- many students were promoted in their jobs and many were given more responsibility. They found an increase in self-confidence and maturity among participants, and they estimated that these effects would be long-lasting. The students, too, expressed feelings of increased self-confidence and maturity and the expectation that effects attributable to Outward Bound would be long-lasting. They also reported an enrichment of their leisure time pursuit and enjoyment of the outdoor

skills they had acquired. They said they would like to return for an extension course.

7. Personality Tests of Group at Devon. This study was a replication of Strutt's research using the Cattell Personality Factor tests. At the outset, students were immature and unsure of themselves; as in the Strutt study, they increased in maturity, self-confidence, and adventurousness in similar proportions.

8. Moray School Study. A pilot study termed inconsequential by Fletcher.

9. Study of Outward Bound Staff at Six Schools. It was found that staff had primary and secondary grammar and modern school backgrounds for the most part; that they took advanced training in colleges of education; that they possessed water, mountaineering, and first aid skills; and that they had taught in modern or comprehensive schools.

Fletcher attempts to summarize the findings by selecting figures on which there is agreement (pp. 60 ff). Most of the findings reported in this summary are consistent with his.

Herbert L. Foster, Diane L. DeBacy, William D. Loockerman, and Roy K. Bartoo, "An Analysis of an Outward Bound Experience and Its Relationship to Teacher Education." Unpublished paper, 129 pages.

Summary

Foster et al. conducted a pilot study of an Outward Bound program involving twenty-four students from the State University of New York (SUNY) at Buffalo and four SUNY faculty members. The purpose of the pilot program was to evaluate Outward Bound training as part of preparation for becoming an inner-city teacher. Three evaluative instruments were administered: two questionnaires (one designed by faculty, the other by a group of students) and the Thurstone Temperament Scales. In response to the faculty questionnaire, students felt that the University should develop an Outward Bound program open to others; that Outward Bound is for all students; that students should receive credit for participation in Outward Bound; and that faculty should accompany students on Outward Bound expeditions. They felt that their experience with Outward Bound had changed their relationship with faculty, with other students, and with intimates. They recommended that the program be coed and they endorsed the program by their willingness to participate again.

Responses to the student questionnaire were not categorized nor otherwise tabulated; they are unusable in their present form. The results of the Thurstone Temperament Scales showed that both men and women improved significantly in emotional stability (defined as being calm in a crisis and difficult to disturb or distract) and that women increased significantly in vigorousness (defined as participating in physical sports and outdoor pursuits).

Herbert L. Foster *et al*.

The report's usefulness is flawed by its detail-by-detail character. The presentation of raw data is inexcusable and the discussion is unenlightening. Yet the report lends further substantiation to the positive effect of Outward Bound on its participants.

G. William Freeman, Bernard Spilka, and Ralph Mason, "Delinquency and the Outward Bound Program: An Empirical Evaluation of a Radical Approach to Delinquency." Paper presented at the 1968 convention of the Rocky Mountain Psychological Association, Denver, Colorado, May 10, 1968. 14 pages plus references and tables.

Summary

The authors studied twenty-four non-delinquent and fifteen delinquent males by testing them prior to and immediately after their involvement in a COBS program in 1967. The participants were 16 and 17 years of age. Specifically, the authors used various scales to test for changes in alienation, achievement motivation, and aggression, among other factors. Even employing a less than normally restricted confidence interval for statistical significance, they found virtually no differences between the experimental and control groups which could reasonably be attributed to the effect of program (although some few tests were statistically significant, the number of variables studied and the levels of significance employed would force one to conclude that even the significant differences were a matter of chance). The authors then combined the experimental and control groups in order to locate additional differences. Their results are not worth reporting since the method is wholly unrealistic and unacceptable. The loss of one-third of the experimental sample alone in the post-test would have stopped most researchers from conducting further analysis.

James H. Gillette,
A Study of Attitude Changes as a Result of Outward Bound Mountain Ski School, C-60. 1971. Unpublished dissertation, University of Northern Colorado.

Summary

Gillette asked thirty-four college students, twenty-two males and twelve females, who participated in a 21-day residential mountain ski school program (Outward Bound C-60) to sort sixty attitudinal statements following the so-called Q-sort technique before and after they participated in the program to determine the effects of Outward Bound on personal views, social and political issues, and physical stress. He utilized standard Q-sort methodology which enables the researcher to rank order statements, to assign numerical values, and then to compute interval or ratio-like statistics such as scores for related means and variance, or $\underline{D}^2$ scores.

He posed two questions:

1. Did participants as a group experience attitudinal changes as measured by comparing means of pre- and post-test Q-sorts using a comparison means for related samples ($\underline{t}$ test)? Gillette found that four variable measures increased over time (assuming initiative, changing pace, doing as others do, and teaching that emphasizes lectures), five variable measures decreased (being concerned over population, being democratic, sharing, supporting law and order, and supporting minority group actions), and fifty-one exhibited no statistically significant change.

2. What attitudinal dimensions showed the greatest variation as measured by the $\underline{D}^2$ statistic? Gillette found that twenty variables met or exceeded a 2.0 $\underline{D}^2$ value.

The above results are uninterpretable. Indeed, Gillette does not interpret them, nor can I. His method is dust bowl empiricism, or the grinding out of numbers without meaning. To carry out the study properly would have required that hypotheses be spelled out in advance and which hypotheses would have been bolstered by cogent arguments as to the direction and degree of expected changes. Otherwise, one can only assume that all the measures should have shown significant movement and that the fault lies with the inadequacy of the measures or with the conception of Outward Bound as a panacea for all attitudinal ills.

Irving S. Greentree, III,
Wilderness Survival Training: The Contribution of Small Group Survival Research to the Understanding of Its Potential for Effecting Psychological Change. 1975. Unpublished area paper, George Peabody College for Teachers.

Summary

Greentree attempts to relate the findings of small groups research to the potential for psychological change of wilderness programs. His work is essentially a review of the literature with special emphasis on Outward Bound. It is best read in two ways--as an overly complicated academic compilation of all variables conceivably related to the Outward Bound experience and as a rendition of some of the underlying reasons for the success of Outward Bound.

As a complicated academic statement, Greentree's paper is without peer. He notes that all of the following operate in wilderness training:

- stress (operationalized in most studies as stressful situations which are then studied in terms of individuals' reactions to them);
- task variables (Greentree specifies a great many variables under this category);
- group variables (including group structures, processes and norms, and such dimensions as affect, power, communication, and goals);
- environmental variables (better, those variables which affect the context or situation, such as support conditions, preparation, and goal orientation).

I have no problem in believing that all of these variables operate in Outward Bound. The problem I do have is how to simplify meaningfully so as to make judicious use of research conceptions for the study of wilderness programs. To some extent this occurs in the latter part of the paper as a natural consequence of discussing the approaches taken by various authors to specific survival topics. Greentree, however, makes no attempt to relate his conceptualization to that research literature.

Several important conclusions result from Greentree's review of literature on specific wilderness programs:

-- emotional make-up may be more important than physical strength in certain survival experiences;

-- mastery over stressful situations can be learned.

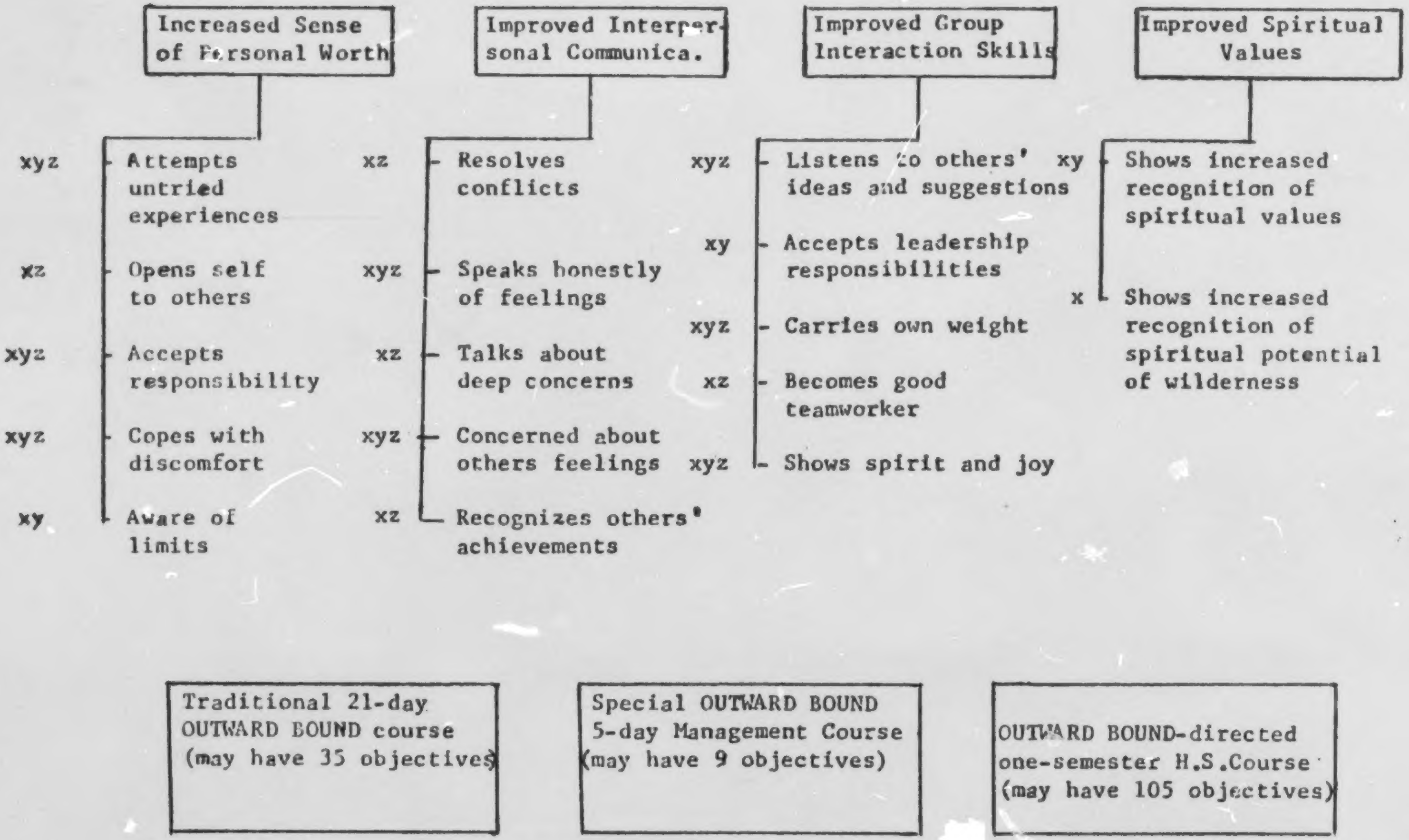
These are warranted and useful conclusions.

Paul Harmon,
"The Measurement of Affective Education; A Report of Recent Work by Outward Bound Prepared for the Conference on Outdoor Pursuits in Higher Education." (February 1974).

Summary

Harmon reports his work as part of a larger effort to specify educational objectives and define behavioral changes. More specifically, he is concerned in this report with the specification of affective behavioral changes. In the case of Outward Bound, the objectives are evolving. However, he finds that it is possible to be rather precise about Outward Bound's objectives with regard to affective outcomes. Rather than summarize his work further, the reader can gain a quick and distinct sense of his work by reviewing his own summary statement in the figure which follows.

OUTWARD BOUND AFFECTIVE OBJECTIVES HEIRARCHY


Increased Sense of Personal Worth
xyz Attempts untried experiences
xz Opens self to others
xyz Accepts responsibility
xyz Copes with discomfort
xy Aware of limits
Improved Interpersonal Communica.
xz Resolves conflicts
xyz Speaks honestly of feelings
xz Talks about deep concerns
xyz Concerned about others feelings
xz Recognizes others' achievements
Improved Group Interaction Skills
xyz Listens to others' ideas and suggestions
xy Accepts leadership responsibilities
xyz Carries own weight
xz Becomes good teamworker
xyz Shows spirit and joy
Improved Spiritual Values
xy Shows increased recognition of spiritual values
x Shows increased recognition of spiritual potential of wilderness
Traditional 21-day OUTWARD BOUND course (may have 35 objectives)
Special OUTWARD BOUND 5-day Management Course (may have 9 objectives)
OUTWARD BOUND-directed one-semester H.S.Course (may have 105 objectives)

Paul Harmon

Figure 2: Hypothetical Example of how the Heirarchy can Provide a Structure for Several Different Programs [from page 10 of paper].

Glen Hawkes, Joseph Schulze, John Delaney, Trudy Schulze, and John Woodbury,
Evaluation of Outward Bound Teachers' Practica, Summer, 1969.
(Reston, Va.: Outward Bound, Inc.).

Summary

Hawkes et al. report on an Outward Bound experience for educators consisting of survival training, hikes, rafting trips, peak climbs, a three-day solo, and a three-day urban experience. They conducted interviews with thirty-four participants, surveyed others by questionnaires, and read diaries of participants. They concluded that the teachers' self-confidence increased; that they were more empathetic towards students and more interested in providing teaching relevant to them; that they wanted to give students more freedom (teachers were less concerned about traditional school regulations but remained concerned about students' measuring up to challenges); and that they were more open and more relaxed with students. The authors recommended that the nature of the Outward Bound program be clarified; that the schedule of events be more flexible; and that written materials be made available on the physical areas where Outward Bound took place. They also reported that the teachers liked the skills training but received the academic component with mixed feelings.

Missing in this report is a discussion of how Outward Bound relates to special purposes, here to the training of teachers. If specific skills are to be taught, then the recommendations offered make sense. On the other hand, if one argues that teachers should experience Outward Bound and realize improvement first and foremost as individuals and not as teachers, then different recommendations follow. Clearly the teachers wished to academize some parts of Outward Bound (they wanted to receive written materials on the environs for the experience, they wanted to have a say in scheduling), but they also reacted with mixed feelings to the so-called academic components, the academic debriefings. What is most at stake is the nature of a general purpose program, what it links itself to, and what its limitations are. The report is too vague on this seminal issue.

Richard A. Heaps and Clark T. Thorstenson,
"Self-Concept Changes Immediately and One Year After Survival Training."

Summary

The topic of this article is: How permanent are changes in self-concept resulting from participation in a survival training program? To answer this question, Heaps and Thorstenson studied twenty-one students enrolled at an Outward Bound-type outdoor survival course at Brigham Young University. They administered the Tennessee Self-Concept Scale immediately before, immediately after, and one year after the program ended. They found significant differences in comparisons of before and immediately after and before and one year after the program for all but a few of the categories of the scale (self-criticism, social self, and family self). The authors offer several research suggestions, including the need to conduct more sophisticated research, one example being research on components of the Outward Bound program, a suggestion which is very well taken.

A. H. Ismail,
"The Effect of A Well-Organized Physical Education Program on
Intellectual Performance." Paper presented at Meeting of the
Association Internationale Des Ecoles Superieures D'Education
Physique, September 5-10, 1966.

Summary

The title of this article should be reworded to reflect the fact that a possible relationship was studied between a physical education program designed with special emphasis on coordination and balance and the outcome variables of academic performance and IQ.

Having reviewed the literature on the relationship between physical factors and social, emotional, and intellectual factors, Ismail concludes, largely on the basis of his own work, that coordination and balance levels discriminate best among high, medium, and low achievement groups. On this intellectual basis he formulated an experiment in which he matched two groups, each consisting of seventy-one students, on intellectual performance. He controlled for grade--all were from grades 5 and 6--and for health--all were healthy. He gave the control group normal physical education and the experimental group physical education with special emphasis on balance and coordination. He found no significant effect of training on IQ scores; he did find a significant effect of training on academic performance.

The study is not strictly speaking one of Outward Bound. It is, however, highly suggestive of a close physical-intellectual relationship, one which operates in Outward Bound.

Lute Jerstad and John Stelzer,
"Adventure Experiences as Treatment for Residential Mental Patients."
Therapeutic Recreation Journal (Third Quarter, 1973), 8-11.

Summary

Noting that the adventure model, as opposed to the survival model, "...emphasizes accomplishment and enjoyment," Jerstad and Stelzer report on the experiences of fifty-one patients, fifty-one staff, and thirty-three guides in an adventure program. The patients ranged widely in age, illness, length of stay in hospital, and nature of treatment. The results of the program were overwhelmingly positive. One patient, Joey, "...who had killed his father and would talk to no one," benefitted immensely from rock climbing. "Two weeks after returning to the hospital Joey was elected president of his ward. Two months later he was released." The second case reported by Jerstad and Stelzer involved a Cherokee woman who benefitted from the attention paid her by the guides, who discovered her knowledge of Cherokee hieroglyphic language, and who thereby was helped to become "...a warm, friendly, open person with pride in her Indian heritage." The authors argued that adventure activities fostered "...a desire to live up to one another's trust," further, that participants wanted to please because they were respected for their accomplishments.

The style of this report is reportorial. Only two cases are described and they are described very briefly. The use of quotes above is meant to convey to the reader how the cases are presented and to lend support to the assessment that the account, though brief, is convincing.

Robert Jickling,
"The Effects of a Course at the Canadian Outward Bound School at Keremeos, B.C." Unpublished, mimeographed, 11 pages plus tables and bibliography.

Summary

Jickling studied fifty students ages 16 to 37 who enrolled in the Canadian Outward Bound School at Keremeos, B.C., during July 1975 to determine whether or not the Outward Bound program had significant effects on the personalities of participants and whether or not these differences existed by patrol. Given six patrols, he reported data by time and by time and group. He found that in the first category (by time) there were several statistically significant differences as measured by the Sixteen Personality Factor Questionnaire (including reserved versus outgoing, humble versus assertive, and self-assured versus apprehensive) and that in the second category (by time and by group) there were several statistically significant differences (including humble versus assertive, group dependent versus self-sufficient, and undisciplined versus controlled). The interpretation of these results by Jickling is faulty. First, he concludes that major changes resulted from participation in the group when, indeed, only five of sixteen factors revealed change. Second, there was no attempt made to choose from among the sixteen factors which are most relevant to the Outward Bound experience. Last, to expect groups to vary in their reactions is an interesting but unsophisticated problem. What is required is that the author consider why they would vary and plan an analysis in advance.

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Donald R. Johnson,
"Evaluation of Two Adventure Programs." 1972. Unpublished thesis, The University of Calgary.

Summary

After a discussion of various types of adventure programs, Johnson reviewed research on adventure programs under three categories--personal growth, social functioning, and physical functioning--and offered some eleven hypotheses to be tested using various measures, including Cattell's 16 PF, Cooper's 1 1/2 mile run, a general questionnaire developed by Fletcher, and sociometric data. The two programs he evaluated were Adventure Plus and Wilderness Encounter, the first sponsored by Boys' Club, the second by the Boy Scouts. Participants in the program were males and females between the ages of 11 and 17.

Johnson found that self-confidence and initiative increased in the percentages he had predicted; and that strong relationships and meaningful relationships increased significantly, too. For the most part, he found that relationships changed in the predicted direction on other measures, however, these changes were not statistically significant nor did they meet the change thresholds Johnson set forth in advance.

The study is noteworthy for its ability to derive specific hypotheses from a review of the literature on adventure programs. More perhaps could have been made of data from the North Carolina and British studies in the first report. There is some strain evident in the report of results which are not significant nor in the predicted direction. This difficulty could have been overcome by formulating hypotheses more consistent in spirit with the level of measurement and accuracy achieved in this topical area.

Nona Kahn,
"Experiential Outdoor Education in the Junior High School: The Colorado Springs Experience." Paper prepared for Colorado Outward Bound School, February 1976, 38 pages.

Summary

This is an administrative report, listing concerns and suggestions for approaching the very difficult questions of how to administer experiential outdoor education programs in a junior high school setting. Kahn's review includes a detailed description of six participating junior high schools with descriptions of transportation, financing, student selection, activities, etc. She is most concerned with the pattern of relationships among administrative and faculty staff and their usually deleterious effects on the Experiential Outdoor Education (EOE) program. Guidelines for developing an effective program at the junior high level are offered, including establishing EOE goals with students in mind, and creating a management scheme based on resources available within the school.

The report is not useful from a research point of view and suffers from a discrete treatment of pedagogical and administrative aspects of the problem of running an EOE program in a school setting.

Richard Katz and David Kolb,
"Outward Bound and Education for Personal Growth." Unpublished,
Office of Juvenile Delinquency, HEW Grant No. 66013.

Summary

Katz and Kolb worked under an HEW grant and utilized participant-observation techniques to determine why Outward Bound programs worked. They espoused an "education for personal growth" perspective as the guideline for their work. In actuality, they presented a series of insights about specific Outward Bound activities and their effects, and the implications of organizing activities in the Outward Bound way. They found the following:

- -- participants join "leagues" based on accomplishment of difficult, but not awesome, activities;
- -- mature students are not likely to become as deeply immersed in Outward Bound because they retain a perspective on Outward Bound activities and goals;
- -- students with psychological fears and difficulties may be affected adversely by Outward Bound;
- -- the Outward Bound ideology--only the strong finish, only the men--is highly pervasive;
- -- the reputation of instructors depends on how well the group completes tasks;
- -- staff are critical to the success of the program.

In summary sections, the authors offered a post hoc educational theory for Outward Bound training, and assessed the usefulness of the programs for training delinquents. While their account is lucid and insightful, their educational theorizing after the fact is a bit contrived. Their assessment of the value of Outward Bound for delinquents does not add much to what we know from other sources.

Francis J. Kelly and Daniel J. Baer,
Outward Bound Schools as an Alternative to Institutionalization for Adolescent Delinquent Boys (Boston, Mass.: Fandel Press, Inc., 1968). Includes a Participant Observers' Report by Richard Katz and David Kolb.

Summary

This is the full report of a demonstration project involving 120 adolescent boys, sixty assigned to Outward Bound schools and sixty to traditional training schools, to determine whether or not Outward Bound is more effective than training schools as measured by rates of return to juvenile institutions. With the cooperation of the Massachusetts Division of Youth Services and various training schools, the researchers mounted the demonstration based on the belief that negative self-concept, lack of personal identity, and ineffectiveness of talk therapy indicated that delinquents might well benefit from the Outward Bound experience. Kelly and Baer controlled for age, physical health, mental health, IQ, assaultive behavior, and voluntarism and selected subjects finally by matching them on age, race, religion, offenses, and number of prior commitments. They collected data on subjects through the use of an objective personality test (Jesness Inventory), Semantic Differential (to measure self-concept), social histories, rating scales administered by Outward Bound instructors and participant-observation (reported separately). Their major finding was that 20 percent of the experimental group as opposed to 34 percent of the control group recidivated; this difference was statistically significant at the .07 level of confidence. There were no differences on the Jesness or Osgood (Semantic Differential) scales. There were differences within the experimental group; however, all of these differences are suspect on the grounds that students were not randomly assigned to the various Outward Bound schools (COBS, MOBS, HIOBS).

This last comment leads to a general criticism of the authors' tendency to treat non-significant, statistically unreliable data as suggestive, leaving the impression through subtle use of language that more has been learned from the demonstration than the data actually permit. This is clearly the case for the discussion of auto thefts (p. 35) and the extrapolations reported on page 38. Little is said about the policy value of the major finding of differential rates for recidivism between the experimental and control groups (whose rates approach conventionally accepted levels of statistical confidence); which is to say, Is a 14 percent difference enough to justify the expenditures involved?

In the appended report, Katz and Kolb, who published their report elsewhere, dwell on the ideology of Outward Bound and how it affects learning. They address the task-orientation of the program and contrast it starkly to psychologizing. They make the points that staff are critical to the nature of the Outward Bound experience and that the generalization of the experience to daily life is problematic. Toward the end of the report they present observations from the participant's point of view and find that especially for delinquents, the task orientation and the rigors of the solo are highly problematic given these adolescents' unfamiliarity with the wilderness setting and their very different family backgrounds.

Francis J. Kelly and Daniel J. Baer,
"Physical Challenge as a Treatment for Delinquency." Crime and Delinquency (October 1971), 437-445.

Summary

Kelly and Baer studied two types of Outward Bound schools -- one type emphasizing severe physical challenge (represented by the Colorado and Hurricane Schools), and the second type emphasizing concern for interpersonal relationships and reflection (represented by the Minnesota Outward Bound School)--to determine the effects of physical challenge on recidivism. The design of the study called for two groups (one experimental, one control) each consisting of sixty youths matched on several variables, including IQ, race, religion, offense for which committed, and number of prior commitments to the Division of Youth Services. A direct comparison of recidivism rates for the experimental and comparison groups revealed a significantly lower rate of recidivism for the experimental group. Further comparisons supported this finding: recidivism rates were lower for the experimental group when the author controlled for age at first court appearance, number of commitments, type of offense, and presence of parents in the home.

The study is flawed on several counts. First, explanation tends to be weak and somewhat doctrinaire. Moreover, the design of the study is other than what the authors state at the outset; that is, a matched group design. For one thing, the analysis of data from a comparison of the matched groups is explained by reference to observations made by three psychologists who served as participant observers and by invoking accepted doctrine. For another, some of the more detailed comparisons are inappropriate since the comparability of experimental and control groups was not established for these variables (age at first court appearance and presence of parents in the home). Some of the post hoc explanation for findings are weak.

A. Donn Kesselheim,
"A Rationale for Outdoor Activity as Experiential Education:
The Reason for Freezin'." Paper presented to the Conference on
Outdoor Pursuits in Higher Education at Appalachian State University,
Boone, North Carolina, February 11, 1974.

Summary

This short paper can be read as a theoretical explication of the elements of outdoor educational programs and their relationship to elements of learning. On the program side, Kesselheim deals with defining characteristics of environmental contrast, physical activity, intentional use of stress, small group context, and employment of newly-acquired knowledge and skills. On the pedagogical side he deals with enhancing self-concept, self-esteem, understanding of self, change in aesthetic attitudes, authority and leadership (and related concepts), and internalization.

The explication is well-written and thoughtful. It is certainly a useful starting point for thinking about programmatic elements and how they might be worked into empirical research. In its own terms, the paper falls short of connecting the two categories of concepts, programmatic and pedagogical; the first are presented more clearly than the second and specific linkages are not developed.

A. Donn Kesselheim and John Douglas,
"Use of Outward Bound as a Training Component for Administrators: Summary Report of a Mobile Seminar." 1972. Unpublished paper, 26 pages and appendices.

Summary

The Center for Educational Leadership in Newton, Massachusetts, sponsored a project to evaluate the usefulness of Outward Bound as a component of training programs for educational administrators. The project was carried out in conjunction with HIOBS in 1972. Recruitment for the program was ineffective--only fifteen attended (there were slots for twenty-four), the majority of these (twelve) came from the University of Massachusetts, and only two other schools were represented (Teachers College of Columbia University and University of Pennsylvania). The Outward Bound program included swim and dip, rapelling, sailing, solo, etc., and was adapted to include "inspirational reading," for example, passages from Ken Kesey's One Flew Over the Cuckoo's Nest. The authors report that the participants responded favorably to the idea of incorporating Outward Bound in their own programs.

This is a weak report, as is the proposal for the project. Despite the limitations of the project as conceived and as it was carried out, still one would have wanted to read about details of the Outward Bound program as they related to the needs and concerns of the educational administrators who did participate. The first section of the report provides no such detail, only a plea for instructors to help participants define goals for themselves. The second part of the report, the evaluation section, is also weak. Having stated that the outcome measure of success is the number of centers adopting Outward Bound in their educational administration programs, the second author deals no more with this topic and presents instead unabridged, raw data which are virtually useless. One bemoans the failure of this study because it is precisely the type of study which could address the next set of issues facing Outward Bound--namely, to what purposes can Outward Bound programs be employed, what forms must these programs take, and with what effects on Outward Bound and the other program or agency.

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Sharon Margaret Koepke,
The Effects of Outward Bound Participation Upon Anxiety and Self Concept. 1973. Unpublished thesis, The Pennsylvania State University.

Summary

Koepke argues that self-concept is related in part to stress, and that since Outward Bound may increase stress and with it anxiety, a change in self-concept might result from confronting stress and anxiety, and that a coping response rather than defensive responses might be elicited. Based on theoretical and empirical literature, she sets forth to test these ideas in several hypotheses; namely, that changes in self-concept as a result of participation in Outward Bound with its attendant effects on anxiety will be the same for males and females; that changes in the real self will be found and that changes in the discrepancy between real self and ideal self will also be found as measured by the Adjective Check List; that since Outward Bound presumes to effect anxiety, changes would be found in state anxiety; and that both ideal and real self concept would be related to state and trait anxiety as measured by the State-Trait Anxiety Inventory.

Koepke carried out her study in 1973 at COBS utilizing thirty-three males and eleven females. Tests were administered at the start and at the end of the program. She found the following:

1. There was a generally positive growth in self-concept as indicated by statistically significant changes in 16 of 23 Adjective Check List Scales, including self-confidence, self-control, endurance, order, etc. Subjects selected fewer unfavorable adjectives and were less likely to solicit sympathy or emotional support from others by the end of the program.

2. There were many more similarities than differences between males and females on self-concept scores; the few differences found included

males' having a higher sense of achievement and females' seeking novelty and avoiding routine by the end of the program.

3. No differences were found between the ideal self-concept pre- and post-measures.

4. Real self-concept differences were found between males and females, where the males checked more favorable adjectives and the females were more self-controlled and more autonomous.

5. Discrepancies between real and ideal self-concept were fewer and smaller by the end of the course.

6. State and trait anxiety were higher at the beginning; there were no significant differences between males and females.

7. There was some support found for a relationship among real self-concept and state and trait anxieties; no support was found for a relationship among ideal self-concept and state and trait anxieties.

James G. Leaf,
"Staff Report: Hurricane Island Outward Bound School - Lyman School for Boys Overlanders Project - January-April 1968." Unpublished.

Summary

The Massachusetts Division of Youth Services conducted a study of Outward Bound involving 120 delinquent boys. On the basis of that study, which found that Outward Bound reduced recidivism, the MDYS decided to introduce an Outward Bound program directly into Lyman School for Boys. HIOBS acted as consultants to Lyman School and built a program based on alternating academic periods and action periods. After correcting some miscalculations, the program settled down to 45-minute alternating periods and, finally, to an action-oriented program for Overlanders, a name coined for the boys at Lyman. This program included a rigid schedule of activities complete with morning run and morning dip, learning of drownproofing, fire-fighting, skiing skills, and study of academic subjects, especially those which could be related to field experiences. The boys also learned first-aid and climbing and, because of special circumstances, how to use a bull-dozer. In conjunction with this last-mentioned activity, Leaf notes that by this time the boys had increased in self-confidence and in their receptivity to education.

In keeping with the principles of Outward Bound, the boys did community service, for which they received some public note. Surprisingly, the boys enjoyed house chores, a fact which Leaf explains in terms of their helping their mothers and as a chance to get away from group pressures. On trips the boys behaved well and their language improved.

The atmosphere of Lyman School is that of a reformatory with an emphasis on conventional punishment. Outward Bound, which holds that punishment should be self-inflicted (that is, punishment is attendant to not having learned a needed skill) conflicted with Lyman practices.

This report is remarkable in several ways. For one, it describes well an effort to seek information on the practical difficulties of expanding the Outward Bound concept directly to the problems of delinquent boys and the institutions which house them. For another, the report can be read as a treatise on what it means to be an Outward Bound instructor. Though obviously not intended for this purpose, the report sets forth a tone which is marked by singleminded honesty, dedication to principles, pride, and a toughness mediated by a perspective always clearly set on the goals of Outward Bound. It is a fine if indirect statement of the effects of Outward Bound on its instructors.

Peter Lev,
"American Indian World View and the Outward Bound Concept: A Comparison." 1968. Unpublished paper.

Summary

Lev attempts to develop parallels between the Weltanschauung of the American Indian and the world view of Outward Bound. He finds an affinity between the "lamenting" of the Indian and the solo of Outward Bound; he finds a sameness in the Indian's notion of turning suffering into the overcoming of suffering and Outward Bound's use of stress and survival training.

Lev's notions are intriguing but they are not well-developed. The findings mentioned above are less clear in Lev's paper. Moreover, it is not obvious which world views Lev is addressing--those of Buber, those of certain anthropologists, those of the Indian, or those responsible for carrying out the Outward Bound program. There is much confusion here, but several of his insights are truly striking and make the paper worth reading.

Darwyn E. Linder and Marie J. Linder,
"Experience and Change: A Psychometric Assessment of the Impact of Outward Bound Courses." 1971. Unpublished paper, mimeographed, 34 pages plus references and tables.

Summary

Linder and Linder argue that Outward Bound courses were designed to affect personality traits and, therefore, a psychometric approach to the evaluation of Outward Bound impact on individuals is warranted. Furthermore, they chose three psychometric tests particularly well-adapted to Outward Bound, including the Personality Research Form, which measures functioning in a wide variety of situations; Acceptance of Self and Others test, which is a direct measure of attitude toward self; and Personal Orientation Scale, which measures events under control of the individual. These tests were administered before and after the Outward Bound courses, although the tests were administered in a more uniform fashion before the Outward Bound course than afterward.

The researchers reported changes by groups, a stratagem which confused analyses unnecessarily. That is to say, some of the groups scored significantly on some test items and some did not, thereby leading the researchers to state findings idiographically but without any analysis offered as to why the groups so differed. Their report of consistent findings — that is, findings across groups -- was more useful. They found that "most students in most courses achieved a gain in self-acceptance." Most other items were not significant; even coed-non-coed differences were not significant statistically.

J. Charles Little,
"A Progress Report on the Development of the Outward Bound Phase of the Environmental-Outdoor Education Program Community Unit School District 200, Woodstock, Illinois." Paper presented to the Board of Education, Community Unit School District 200, December 1970. Unpublished, mimeographed, 91 pages.

Summary

Little presents various application materials, including letters, brochure, maps, and equipment checklists, followed by uncategorized, untabulated responses to questions in a participant questionnaire. These data are not usable; neither are the data presented as numerical summaries usable because they, too, are similarly undigested and unorganized.

Richard A. Lovett,
Outward Bound: A Means of Implementing Guidance Objectives.
1971. Unpublished thesis, University of Toledo.

Summary

(This study is so seriously flawed that its conclusions are unwarranted. In reading the following summary, the reader must keep this firmly in mind.)

Lovett argues that Outward Bound provides an excellent context for the work of guidance counsellors. The reasons adduced are the following: the stated objectives of Outward Bound and those of guidance counsellors are consistent and overlapping; the organizational context in which counsellors do their work -- the school -- puts their funds and their time under the control of administrators producing strained relations with teachers who view counsellors as siding with administration.

On the empirical side, Lovett carried out a survey to determine what kind of an effect Outward Bound had on participating students. He surveyed seventy-eight high school students (from Woodward High School in Toledo, Ohio); thirty-nine had experienced Outward Bound and thirty-nine had not. He reported the results of the survey item by item, in percentages, and without statistical tests. Rather than report his conclusions, I should say that the results were more positive on some questions and less positive on others. On the basis of some items the Outward Bound students seemed to be more confident, on the basis of others the results were mixed. With regard to relations with others and living and working with others the results were definitely mixed; and with regard to sharing with others, the results were the opposite of those predicted.

Rather than try to make sense of these "results," I would point out the following:

Richard A. Lovett

1. The survey had nothing whatsoever to do with the contention that Outward Bound provides a useful context for the work of guidance counsellors. Counselling was not a variable in the study, therefore one cannot conclude anything about it and Outward Bound.
2. The relationship between Outward Bound and counselling is barely explicated. One could have argued that Outward Bound does provide counselling, but not guidance counselling; that the question becomes one of the mechanisms of Outward Bound versus the mechanisms of guidance counselling; and that one should have designed a study of those counselled within and out of Outward Bound and those not counselled to gain a sense of the value of counselling in an Outward Bound program.
3. The descriptions of the tables and the table contents are at variance. Simple contingency table measures of association would have helped to make the analysis clearer.
4. The only practical uses of the study are the theoretical suggestion it offers (but does not develop) between Outward Bound and guidance counselling and the contribution of some additional empirical data on the effects of Outward Bound on various aspects of self-concept.

Daniel H. Lowenstein,
Wilderness Adventure Programs: An Activity Profile. The
Pennsylvania State University, November 1975.

Summary

Lowenstein points out that prior to 1960, the history of Wilderness Adventure Programs is the history of Outward Bound. For purposes of this volume, Lowenstein's review is useful as a catalog guide to the various aspects of Outward Bound, including its history, activities, clientele, purposes, and legal status. Some attention is paid to research, but research is not the mainstay. Rather, the volume catalogs programs by categories of information which takes the life out of the programs (as Lowenstein himself notes at the beginning) and out of the issues as well.

Robert S. MacArthur and Patricia A. Bergman,
"Report on the Outward Bound Learning/Living Term Program at Dartmouth College, Spring Term, 1974." Unpublished, mimeographed, 31 pages.

Summary

MacArthur and Bergman report on an academic innovation involving "...selected academic work, cooperative living, involvement in neighboring communities, and wilderness/challenge activities." Their techniques were research-like, but their main purpose was to evaluate the experience from an academic-administrative perspective. The ten students selected for the program came from a variety of classes and majors. They participated in a wilderness trip and afterwards took up residence together in a cooperative living arrangement. This part of the "course" became the focus, not Outward Bound. Accordingly, the authors provided more material on this topic. They noted that the cooperative living arrangement "created and siphoned energy." They noted conflicting feelings about roles and confused emotions with regard to the group (especially allegiances).

In keeping with the idea of the core course, students were asked to take related academic courses. They participated in a community outreach program, in various components of Outward Bound training (e.g., drownproofing, solo), and in a final Outward Bound expedition.

In assessing this report, it is necessary to remember that while Outward Bound was a major component of the course concept, in actuality cooperative living replaced it in importance. This fact and the lack of hard research data or systemic research make it difficult to arrive at definite conclusions on the effect of Outward Bound on students when Outward Bound is made part of an academic training procedure in this way.

Frederick W. Medrick,
Outward Bound and Higher Education: A Rationale and Outline for College Development. (Denver, Colo.: Outward Bound School).

Summary

This publication is a brief but highly useful outline of the goals and purposes of Outward Bound with program suggestions for affiliation and implementation. Medrick begins with assumptions -- that man should relate actively to his physical and social environment; that individuals should be presented with stress opportunities; and that individuals should confront others from radically different backgrounds -- and goes on to specify what these priorities imply for participating individuals and institutions. From such individual concerns as enhancing self-concept and improving interpersonal relations and such institutional concerns as providing alternative approaches to learning and encouraging student responsibilities, Medrick derives those overlapping goals which can be realized in Outward Bound, including individual personal development, interpersonal effectiveness, and the like. The specific means for accomplishing these ends are then enumerated (physical challenge, stress experience, reflection, etc.), followed by brief descriptions of the actual varieties of Outward Bound schools and their real-life institutional affiliations.

The logic of this little pamphlet is tight and its worth high.

Arnold M. Naches and Janet A. Roberts,
An Evaluation of Several Effects of the Title III ESEA Dare to Care Program on Involved Students, Faculty, Parents and Community Members.
June 1967, 84 pages.

Summary

Naches and Roberts report on an evaluation of the Dare to Care Program which involved activities such as drownproofing, mountain rescue, a river trip and other outdoor activities, as well as academic study. To conduct the evaluation, which was mounted after the start of the program, these two school psychologists employed a commercially designed High School Personality Questionnaire along with instruments they designed, including a Student Attitude Survey, a Staff Rating Scale, and questionnaire for parents and members of the general community. Students filled out the HSPQ and the SAS; teachers filled out the SAS and the Staff Rating Scale (they were asked to fill out the former from the point of view of the students). Rather than report the so-called findings from the HSPQ and the SAS, it suffices to say that the analysis of data from these instruments is poor and misleading. There were virtually no differences observed in the data. Yet on pages 21, 38, and 43, the conclusions offered state otherwise, even though the authors have stated at various points in the discussion that there were no notable differences. The data from the pupil, parent, community questionnaires are presented in a confusing manner but it seems that almost every respondent was favorably disposed to the program. The only other point worthy of note is that faculty were less favorable in their view of potential dropouts than the dropouts were toward themselves; this was not true, however, of the primary teacher. In all, this report is so badly flawed by the attempt of its authors to see differences where none existed, that one must discount most of the analysis.

Eugene C. Nelson,
"Predispositions and Attitudinal Changes in Outward Bound and Human Relations Groups." 1970. Course paper.

Summary

Nelson posed five questions aimed at addressing empirically the similarities and differences between Outward Bound and Human Relations Groups, as follows:

1. Do attitudinal predispositions differentiate Outward Bound students, Human Relations (HR) students, and Dartmouth College students participating in neither?

   Answer: Yes.

2. What specific attitudinal predispositions differentiate Outward Bound students from HR students when each group is compared to the control group?

   Answer: Outward Bound students think of themselves as weak, unfriendly, pessimistic quitters who lack self-confidence but who place high value on cooperation and teamwork, and on frankness and independence. HR students see themselves as contemplative, inner-directed, independent students who are relatively unfriendly and who view the process of getting to know others as difficult.

3. Do these groups undergo attitudinal changes?

   Answer: Yes

4. Which group experienced greater change?

   Answer: Outward Bound.

5. Is the process of learning different?

   Answer: Unclear.

Eugene C. Nelson

Nelson concludes that Outward Bound and HR ought to be meshed, a conclusion which is not warranted by the data, and which is a statement based more on personal preference than on analysis.

Joseph J. Nold,
"Outward Bound Approaches to Alternative Schooling: A Preliminary Paper." 1973.

Summary

Nold addresses himself to the educational program adaptations which have involved Outward Bound, including motivational programs, human relations programs, alternative programs to physical education, curriculum enrichment, and faculty development. In each case he describes an Outward Bound program and an evaluation of that program. He concludes overall that Outward Bound does provide usable, realistic alternatives.

By and large his description of Outward Bound programs and their evaluations are accurate, but it is the tone and the purpose of this booklet that nags. The tone is one of advocacy; the purpose is one of persuasion. The caveats are few and little attempt is made to glean issues involved in relating Outward Bound to schools; to state the larger question of elasticity of the Outward Bound program or alternatively; and to address the limitations on its form and nature. A more self-conscious appraisal would have been more convincing.

Joseph Nold and Mary Wilpers,
"Wilderness Training as an Alternative to Incarceration," In
Calvert R. Dodge, A Nation Without Prisons (Lexington, Mass.:
D.C. Heath and Company, 1957).

Summary

Nold and Wilpers review some of the empirical research on the use of Outward Bound with problem youth and also review some of the offshoot programs and their research records. While the article is derivative of the research of others and does not add empirically to our knowledge about Outward Bound, it is included here for the interesting observations it offers about Outward Bound and Outward Bound-type programs. For example, there is the implication in their summary statement under the heading "Not a Panacea," that "hostility" is necessary to the development and growth of an individual, but that the form and nature of that hostility is critically important if lessons are truly to be learned. Thus, while they would shun the hostility engendered "...by bars, bricks, and walls," they would make active and good use of the hostile forces of nature. They are equally poignant in their listing of the various critically important components of wilderness program, including immediate and virtually irrevocable feedback; the relationship of small-group experiences to the development of mutual trust; their feeling that the choice of participants should be based on a notion of "right psychological moment" for the individual; that the program must be viewed in relationship to continuing needs; and that the program has broad and deep effects on those who staff it.

Robert Patterson Nye, Jr.,
The Influence of an Outward Bound Program on the Self-Concept of the Participants. 1975. Unpublished dissertation, Temple University.

Summary

Nye addresses questions of the effects of Outward Bound on self-concept and, if they exist, how enduring they are. To specify the questions, he puts forth, in effect, two hypotheses (each with an attendant sub-hypothesis) and one presumption about validity, namely: (1) there will be a significant increase in self-concept as measured by the Tennessee Self Concept Scale overall and in each of its components; (1a) this significant increase will be found in a test of subjects some three months after the Outward Bound program has ended; (2) scores will be unrelated to sex; (2a) these scores will remain unrelated to sex some three months after the Outward Bound program has ended; and (3) instructor evaluations, which one presumes can stand as a criterion measure of validity, will indeed validate--that is, positively and significantly correlate with--TSCS scores. My restatement of his hypotheses is closer to the clarification of purposes which Nye states at the end of his review of literature on self-concept within and without Outward Bound. There he states that based on the literature the problems are three: that there seems to be evidence that Outward Bound will produce a change in self-concept; that the duration of the change is arguable; and that the relationship of sex to self-concept must be studied.

In 1974, Nye studied a group of thirty-eight male and forty-six female high school students who participated in a 24-day coeducational course at NCOBS. For a comparison group he employed fifty male and twenty-eight female students taking summer courses. Using the TSCS he found that the groups were indeed comparable; their pre-test scores on self-concept were close. Having established this fact, he reports on the conclusions of the study.

1. Self-concept increased significantly and, three months later, the scores still differed significantly from pre-test scores.
2. Overall, there were few male-female differences and one would conclude that the null hypothesis could not be rejected.
3. The criterion measure of instructor evaluations did not correlate positively and significantly with TSCS scores.

I prefer to report the findings this way, rather than in greater detail, since the TSCS test is highly reliable but the independence of its subcategories has not been established (p. 15). In practical terms this means that the test can be used to measure self-concept but one must be careful not to make fine comparisons between scores in one category and those in another. As for the validity test involving instructor's evaluations, a number of points need to be made. First, it is strange to include such a test when the researcher has noted that the TSCS has been used in more than 180 published studies, thereby lending credence to its validity. Second, it is not cricket to explain away the result as one of instructor's "...lack of expertise in picking up cues which indicate self-concept" (p. 38). I would offer the observation that the test may be highly refined and therefore capable of picking up changes in self-concept which are much more subtle, elusive, or more to the point, not practically observable. Thus, if one introduces a distinction between statistical significance and policy significance, the instructors may be saying in effect that statistically significant increases are not all that large, and that practical differences in behavior were not discerned.

Elizabeth V. Phillips,
Upward Bound--Outward Bound: A Study of Dropouts Among Poor Urban Youth in Outward Bound. 1970. Unpublished thesis, Yale University, 97 pages.

Summary

Phillips studied dropouts from Outward Bound who had come to the program from Upward Bound. The study was based on an ex post facto design. That is to say, when participants began dropping out of the Outward Bound program in large numbers, the researcher quickly switched to focus on the dropouts and on establishing the relationship between several variables and the fact of having dropped out. Phillips found that race, parents' assessment of child's strength, and IQ were related to dropping out. She also provided background material on staff-participant relationships which suggest that the program was hastily improvised to handle the recruits from Upward Bound; that the Outward Bound staff were disappointed in the recruits (they were younger, less committed, less motivated than expected); and that the Outward Bound instructors reacted strongly to the class-related characteristics of the youths, including their profanity and wariness.

Several caveats must be kept in mind in interpreting this study. One, why should a high retention rate be expected when students pass to a second, very different type of program? Second, how does one separate program effects on retention rates from the effects of administrative foul-ups which were present for a number of different reasons, including the hurried way in which the program was mounted? Less as a caveat and more as a direct criticism of the research, I note that the tables from which the author derives the main analysis of the study (see pages 44-49) are confusing in form. The discussion of the analysis is less confused but misleading and the appendix is clearest on the comparisons between those who stayed in the Outward Bound program and those who dropped out.

John C. Pooley,
"The Assessment of Men for Job Placement at Outward Bound Schools."
1968. Course paper, Measurement Seminar.

Summary

Pooley's paper is a rambling treatise on job assessment in general and as it relates to the choice of instructors for Outward Bound in particular. He reviews the precepts and "Staff Criteria" for Outward Bound; the various sources for assessment (the individual, his acquaintances, and evaluators); the stages usually found in the development of assessment instruments; the various choice determinants in approaching assessment (whether to start with parts or the whole, whether to be objective or subjective, etc.); the importance of assessing leadership; the place of personality assessment in job assessment; an account of actual practices; and suggestions.

The discussion has limited use in and of itself. Its practical value is to remind us of the problems inherent in selecting instructors and the wide and disparate practices followed in hiring.

L. Stanley Ratliff,
"Senior Seminar 1972: An Evaluation of an Experiential Learning Program at East High School, Denver, Colorado." A Joint Venture of East High School and Colorado Outward Bound, University of Colorado.

Summary

Ratliff defines the Senior Seminar as "a school in living for life." In this report he describes the various modules of the program, budgets and schedules, and the "evaluations" of students and parents.

The modules were many and diverse. The 100 students and eight teachers (four contract, four student) did not participate in every activity. The Senior Seminar included a Mexico Module in which students participated in camping activities; a power and politics module in which written answers to specific questions substituted for journals; an urban arts and a Navajo module, about which little detail was offered; a Chicano Module; a St. Louis Module; a Yampa-Green River module; an eastern culture module; etc.

One immediately appreciates the potential richness of the program and the planning and dedication required to carry it off. However, the descriptions of the modules are sketchy and the "evaluations" are practically unusable. The latter do seem to indicate some improvement in racial attitudes, a special concern at East High School, but the value and impact of individual modules is not addressed.

Report on the Practicum in Outward Bound (July 1-August 9, 1968).

Summary

From July 1 through August 1, 1968, a course for credit was offered by the Colorado Outward Bound School and Colorado State College, Greeley, Colorado. Thirty-three teachers and three others joined the course to partake in the Outward Bound program and to analyze their experience. Their report's point of departure is the concept of alienation; the first question is how Outward Bound addresses this problem. Thereafter, the report is a discourse on the psychological and social psychological underpinnings of Outward Bound with frequent references to the classics of literature to the experiences of students as recorded in diaries.

This report can be read most profitably as an extended statement on the theory of Outward Bound. From Hahn's original conception to Maslow's psychology to the writings on small group processes, there is an attempt to fit the concepts to the Outward Bound experience and to gain deeper intellectual understanding of the parts of the process and how they relate to each other. The presentation is cluttered and uneven. Yet a number of points come through clearly for the discriminating reader.

John Stewart Rhoades,
The Problem of Individual Change in Outward Bound: An Application of Change and Transfer Theory. 1972. Unpublished dissertation, University of Massachusetts.

Summary

Rhoades argues the position that Outward Bound is "...a process for change," a contention that can hardly be construed as controversial by someone outside Outward Bound, but which Rhoades asserts is controversial among the staff of Outward Bound. From this starting point, Rhoades proceeds by drawing out the implication that as a process for change, Outward Bound is similar in a number of respects to processes (read: programs) specifically designed for planned change. The questions, then, are how to understand this process of change as such and how better to understand why individuals change as a result of participating in Outward Bound, and whether or not the change persists and under what circumstances.

The first part of the dissertation is devoted to a review of Outward Bound. Rhoades finds that there are four components common to all Outward Bound programs: physical conditioning and fitness; technical skills; safety and emergency care; and group activities. He also finds, in effect, that a number of characteristics are common to these components. For example, stress is inherent in many of the activities. He points out that the stress is of a very certain sort, that is, not so severe that participants are debilitated by it and are not able, therefore, to succeed at the task. The stress must appear greater than it is, or great enough to impel group support and assistance. (We might add that the stress must remain for a time even during the activity, then fade somewhat, but never fade completely, lest the activity seem undeserving of the label "accomplishment.") Other characteristics of component activities include simplicity (which may be more apparent than real, and which might mean in practice that participants experience the challenge but not the art of the task); action-orientation; confrontation (between the individual and himself, others, staff, and environment); and a series of characteristics which I would refer to as qualities usually deemed unteachable in a finite amount of time and through specified techniques, including responsibility, sensitivity, compassion, and persistence.

Rhoades proceeds to a discussion of Outward Bound from the perspective of change theory and transfer (of learning) theory. At this point it is best to become evaluative in this summary since I would argue that whereas the first part of the dissertation is insightful and at several points creative, the other parts of the dissertation are overly academic. For example, even the section immediately following page 22--an academic defense of the first section's observation--is weaker and is, in effect, a series of footnotes to section one. For the remainder of the dissertation an attempt is made to operationalize the concepts of "freezing" and "unfreezing" and "transfer" for Outward Bound with little success. There is no argument about the applicability of these concepts to Outward Bound; there is reason to ask whether or not one learns something more as a result. I find that the result of introducing these distinctions leads to a solemn intoning of such verities as the instructor must know when to push and when not to (compassion?); and the instructor should be highly skilled in handling human relations. The author is revealed as a highly sensitive person who cares about how individuals experience Outward Bound and how to help them

John Stewart Rhoades

as individuals to continue to enjoy the fruits of the program for a long time. These points might have been developed more fully and in more workable fashion had the tone and format of the first section carried through the remainder of the dissertation.

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Seymour Kenneth Robbins, Jr.,
Outdoor Wilderness Survival and Its Psychological and Sociological Effects Upon Students in Changing Human Behavior. 1976. Unpublished dissertation, Brigham Young University.

Summary

(It is best that I state my reservations about this study in advance of reporting on its outcomes in order to help the reader understand the description of the study.)

Robbins' study suffers from lack of clarity both in terms of the organization of the presentation and in terms of the formulation of the questions guiding research. The result is that an otherwise competently conceived study is made more complex and less exact in the reporting. Also, some basic questions which follow from the focus of the study are not included. For example, having specified five hypotheses in unclear fashion, Robbins reports on procedures and findings without repeating (or further clarifying) the hypotheses. Then, in a first summary statement he summarizes the findings with regard to the hypotheses--but in a manner at variance with the more detailed exposition--while in a second summary he summarizes the findings with regard to the tests used--and here his exposition is clearer but the expostulation of hypotheses is still unclear. The problem of unclear hypotheses can best be illustrated by referring to the major thrust of the study, namely, the problems attendant to re-entry to our social worlds after exposure to survival and wilderness experiences. Robbins seems to assume that the experience is so traumatic that it requires therapy (most notably, Logotherapy) first, to cure the damage and second, to help the good experiences surface. The premise is shaky and the discussion of therapies studied is scant and incomplete.

Robbins begins his study by noting that during the weeks following

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survival experience, individuals experience a drop in social and psychological functioning followed by a difficult return to a more usual social world. He proposes, therefore, to determine whether or not any behavioral change results as a function of participation in a wilderness-survival program; whether or not there is a decrease in psychological or social functioning in the weeks following participation; and what effects, if any, can be discerned as a result of applying therapeutic treatment to program participants.

Robbins reviews Hahn's strictures and the empirical research literature on wilderness and survival programs. He hypothesizes: that subjects will experience changes in behavior and attitudes as a result of participating in 30-day program as measured by the Tennessee Self Concept Scale (Hypothesis I); that students will experience a drop in social and psychological effectiveness immediately following their participation as determined by the Survival Conflict Scale (Hypothesis II); that therapy (Logotherapy) administered before, during, and after will facilitate positive changes (Hypothesis III); that behavioral changes for Outward Bound can approximate those of students involved in a special eight-week therapy course designed to reduce "Self-Defeating Behavior," as measured by the Chamberlain Adjective Completion Scale (Hypothesis IV); and that there will be a positive relationship between several variables specified and degree of difficulty experienced in readjustment (Hypothesis V). In effect, then, there are three main hypotheses, namely I, II, and III and two affiliated hypotheses, namely IV, which is actually IA and which uses a different outcome measure, and V, which is actually IIIA and is not specified as regards empirical measurement.

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Robbins describes the experimental setup on page 22 and then reports his description several times. It is a rather complex design formulated to control for the effects of testing. He then describes the empirical tests, some of which were not included in the description of hypotheses and empirical measures.

It is difficult to assess results. Discussion of individual hypotheses and results are unclear (See Chapter 3); and the summary on pages 57 and 59 is incomprehensible. On balance it seems that there were changes in behavior; that social functioning did suffer (but the way Robbins tries to explain this away--it was more a matter of experiencing difficulty in communicating with parents and peers--misses the point entirely); that hypothesis three was not confirmed; hypothesis four was not confirmed since all groups, including the control group,improved; and hypothesis five stands.

The reason for going into some detail on this study is that it purports to be a major piece of research on wilderness and survival training. It is not, although it could have been.

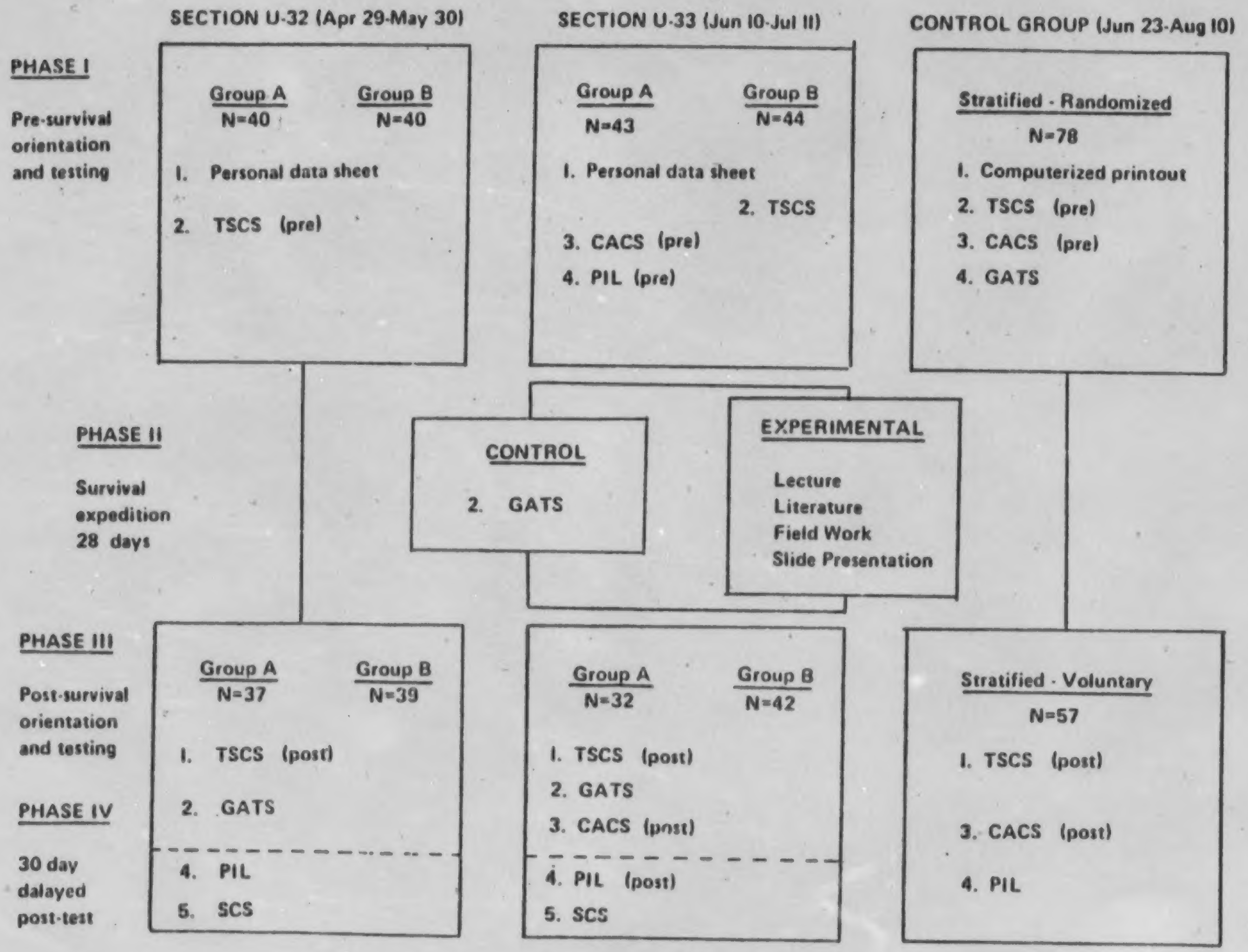
SECTION U-32 (Apr 29-May 30)
SECTION U-33 (Jun 10-Jul 11)
CONTROL GROUP (Jun 23-Aug 10)
PHASE I
Pre-survival orientation and testing
Group A N=40
Group B N=40
1. Personal data sheet
2. TSCS (pre)
Group A N=43
Group B N=44
1. Personal data sheet
2. TSCS
3. CACS (pre)
4. PIL (pre)
Stratified - Randomized N=78
1. Computerized printout
2. TSCS (pre)
3. CACS (pre)
4. GATS
PHASE II
Survival expedition 28 days
CONTROL
2. GATS
EXPERIMENTAL
Lecture
Literature
Field Work
Slide Presentation
PHASE III
Post-survival orientation and testing
PHASE IV
30 day dalayed post-test
Group A N=37
Group B N=39
1. TSCS (post)
2. GATS
4. PIL
5. SCS
Group A N=32
Group B N=42
1. TSCS (post)
2. GATS
3. CACS (post)
4. PIL (post)
5. SCS
Stratified - Voluntary N=57
1. TSCS (post)
3. CACS (post)
4. PIL

FIGURE 2

Research Model – Outdoor Survival
Youth Leadership 480

[from page 22 of the study]

Harold M. Schroder and Robert E. Lee,
Final Report: Effects of Outward Bound Training on Urban Youth. 1967.

Summary

Schroder and Lee studied forty male youths ages 16 to 18 enrolled in Action Bound (an Outward Bound-type curriculum based in a Trenton high school) and an equal number of youths carefully matched for race, SES, and IQ, to determine what, if any, were the short-term psychological effects of this program on these urban youths. The authors identified four topical areas of interest--achievement orientation, peer relations, identity, self-reassessment--and utilized a wideranging battery of tests requiring at one point some two to three hours for their administration. Results are as follows:

1. Achievement orientation. The authors distinguished four subaspects of achievement orientation with these results:

   a. Level of occupational aspiration--both experimental and control group members increased their aspirations, therefore no relationship between aspiration level and Outward Bound could be determined.

   b. Persistence in goal orientation--there were no differences between the experimental and control groups.

   c. Flexibility of occupational means-ends orientations--differences were not statistically significant.

   d. Teachers' ratings of achievement orientation--the orientation of Action Bound students was significantly greater than that of control group members.

2. Changes in reciprocity and interpersonal participation. Four subcategories were distinguished:

a. "Positivity" of person perception--there was some increase on the part of Action Bound students.

b. Behavioral ratings of peer relations--differences were statistically significant.

c. Extent of interpersonal trust--no significant differences were found.

d. Capacity to generate and entertain alternative perspectives about others--no significant differences were found.

3. Changes in self-identity. The four subtopics studied are as follows:

a. Positivity of self concept--no significant differences were found.

b. Non-alienation--no significant differences were found.

c. Behavioral ratings of self concept--members of the Action Bound group were significantly more positive.

d. Emergence of an independent self--no significant differences were found.

4. Changes in capacity for self-reassessment. Two aspects were discussed:

a. Positivity of perception of authority figures--no significant differences were found.

b. Behavior ratings of response to criticism--differences were significant with Action Bound participants more positive in their approach to criticism.

The discussion of these findings by Schroder and Lee are disturbing on a number of accounts. First, they overstate the positive nature of the findings, initially in the abstract and later on page 77, where they make the case that Action Bound made a significant difference for participating students in regard to themselves, in regard to others, and in regard to their abilities to reach generally positive goals. Indeed, they state that "...students began to develop those attributes of character which act as a foundation for achievement and for mature social participation" (p. 77). I find a rather different picture. Of fourteen tests reported, four clearly showed statistically significant results and all of these involved the same technique--behavior ratings. Further, the report of questionnaire data which asked participants about the program itself showed only slightly positive leanings toward the program which would help us to understand why the program had so little impact on the students. Finally, the use of the X^2 statistic in conjunction with the t statistic is questionable since the former is much more easily influenced by sample size and is more general in its measurement of outcomes. Not to find a significant t test and then to report results as significant because there was a significant X^2 test is to mix statistical tools which measure rather different qualities of the data.

As a final note I would add that the introductory discussion of the psychological orientation which guides the study is roundabout and confused. Indeed, the discussion of the "simulation" of challenge (I should think that the tasks of Outward Bound were "real," given their close connection to other tasks) and "superordinate goals" is confusing and does not lead into the next list of psychological concerns of the study (increase in motivation through development of self-respect, concomitant self-confidence, etc.), nor to the next list of psychological topics (increase in motivation, increase in ability to take the other's point of view, etc.), nor to the final list, which is the list of topics for which results were reported above.

Joseph R. Schulze,
An Analysis of the Impact of Outward Bound on Twelve High Schools
(Greenwich, Ct.: Outward Bound, Inc.). Pamphlet, 131 pages and appendix.

Summary

Schulze provides a background statement on the development of Outward Bound by reviewing Hahn's precepts in great detail. He notes that the Outward Bound program has sought to reach out to more students, and that to accomplish this, the administrators of Outward Bound attempted to make contact with various educational institutions. His report covers twelve such schools -- three urban, three private boarding, one private day, and one special -- which he studied by means of interviews and questionnaires in the academic year 1970-71.

These outreach programs were started for a variety of reasons. Some schools sought to improve social and racial relations among students, others to improve student-staff relations, to upgrade a sense of class and school unity, or to promote a specific activity such as conservation. To report his observations of the impact of Outward Bound, Schulze first writes about East High School where the Outward Bound program was undertaken to improve race relations.

The administrators of the school and of Outward Bound believed that the emphasis in Outward Bound on group responsibility and group problem solving would result in a relaxation of tensions. The research found that the 26-day Outward Bound course was useful for these purposes, as were field service trips. Mountaineering, an integral part of Outward Bound, was not found useful if only because it attracted mostly white students from a high socioeconomic background.

Joseph R. Schulze

In terms of the full sample of schools, Schulze found that the overall climate of the school improved; that the impact on students was impressive; and that Outward Bound was a vehicle for curriculum reform. In his recommendations he is clear to point out that Outward Bound should not impose its philosophy on the schools; that it should seek to gain the support of administration; and that it should be given over to the administration of the school as soon as possible and not be kept as a special program.

Schulze's presentation is organized and well-written but it is also superficial in many respects. There is nothing systematic or searching about his reporting; he does not address the question of what the Outward Bound program is once the schools have redefined it, or what its long-term uses might turn out to be. The highlights which he reports do agree with the accounts of others, but one would have hoped that the closer look given to Hahn's precepts at the outset would have also been given to the conventional research wisdom about the impact and effects of Outward Bound.

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Joseph R. Schulze,
"Evaluation of Dartmouth College-New Hampshire Outward Bound Program, Winter and Spring 1970." Unpublished paper, mimeographed, 33 pages and appendix.

Summary

The Dresden School District commissioned Schulze, a professor of education, to evaluate the Dartmouth College-New Hampshire Outward Bound Program for the Winter and Spring terms of 1970. He focused his evaluation on the New Hampshire high school students and the Dartmouth college students who participated in four different courses, one a single patrol of ten students from Dartmouth College; another a program for high school students emphasizing winter survival activities and a wilderness solo; a third consisting of wilderness experiences and an urban solo; and a fourth course for high school students consisting of wilderness experiences, including a wilderness solo and sea experiences.

Schulze reported that the students had come from different backgrounds, some because they were dissatisfied with their educations and life-styles and others for the physical challenge. From personal interviews with the students, from a detailed questionnaire, discussions with the Outward Bound staff, and a few talks with parents of participating students, the following emerged:

-- the real source of stress among students in the program came from living arrangements, not from physical taxation;

-- major program value derived from the heterogeneous backgrounds of the participants;

-- participants invariably learned a great deal about themselves and experienced a sense of achievement;

-- college students benefitted greatly from their role as instructors in some of the courses.

Schulze made several suggestions for improving the program, including increasing the variety of activities in some of the courses (especially those hampered by the New Hampshire cold); further diversifying the composition of the patrols, including making some of them co-ed; and increasing the difficulty of some of the tasks.

The report is flawed because of its admixture of observation and editorial comment. In numerous spots the worth of the program is presumed and then used as a basis for presenting statements and observations collected from students, staff, and parents. Further, the numerical data gathered from the questionnaire are not integrated into the body of the report. Last, the best reporting is on two of the patrols, leading one to the conclusion that this type of research-educational-administrative reporting works best in dealing with program activities in a specific way.

Dan Sellard,
"Churchill Challenge: A Special Outward Bound Course Conducted by Northwest Outward Bound School for Churchill High School, Eugene, Oregon." May 1970.

Summary

Dan Sellard, described as a professional writer, wrote this report on the Outward Bound experiences of fifty Churchill students, twenty-five boys and twenty-five girls, with a 21-day course culminating their junior year at high school. The students were exposed to wilderness training, rock climbing, the solo, and the marathon in six patrols which were marked by the diversity of the participants.

The report is overwhelmingly positive; indeed, the tone of the report is "gung-ho." It is a broad and non-searching testimonial.

Keener Smathers,
"Outward Bound in the Professional Education of Teachers: A Study of An Experimental Component in Field Experiences." National Conference on Outdoor Pursuits in Higher Education, Appalachian State University, Boone, North Carolina, 1975.

Summary

It would be inappropriate to report the "findings" of this study. The equivalence of the three groups studied--those who experienced Outward Bound (OB), those who volunteered for Outward Bound but were not selected (NS), and those who had not volunteered for Outward Bound (CR)--was never established. Indeed, there is some evidence that the OB and NS groups were not equivalent (pp. 5-6) when one would presume they would be. There is clear evidence that the self-concept - self-confidence of the CR was significantly higher than that of the OB group. These facts combined with the small number of subjects (twelve), poor explication (see especially pages 13 and 19), and misleading statements render the study virtually useless. On the last point, it is not until pages 22 and 23 that we are told about the statistical problems that follow from non-equivalent scores for OB and CR groups at the outset. Even then, this fact is not incorporated as a qualification of the main "findings."

Mary Anne Wakefield Smith,
An Investigation of the Effects of an Outward Bound Experience on Selected Personality Factors and Behaviors of High School Juniors.
1971. Unpublished dissertation, University of Oregon.

Summary

In 1970, forty juniors and six faculty members participated in and completed a 21-day Outward Bound course and participated in and completed several psychological tests utilized to determine the impact of that course on selected personality factors. In addition to these data, the author also collected data on school attendance and grade point average. The three time points for various data collection were before, immediately after, and seven and one-half months after the program. Included in the psychological battery of tests were Gough's Adjective Check List, Cattell's Sixteen Personality Factor Questionnaire (Forms A and B), and the author's constructed scales administered by the teachers and designed to tap self-confidence and perseverance. Whereas the reliability of the first two instruments was high, for the third there were no measures of reliability nor of validity.

The results can be summarized briefly: No comparisons were statistically significant except for a few which resulted when finer breakdowns were made, such as between boy's experimental and girl's control group. The problem to my mind is one of starting points, since it seems that scores were high to begin with, including those for attendance and grade point average.

Mary Lee Smith, Roy Gabriel, and Ronald D. Anderson,
"Final Report: Project to Design Evaluation of Outward Bound."
1973. Bureau of Educational Field Services, University of Colorado.

Summary

Smith, Gabriel, and Anderson report on a proposal for empirical research on Outward Bound that will demonstrate results "unequivocally." To accomplish this purpose, they propose a true experimental design following Campbell and Stanley wherein fifteen males and fifteen females would be randomly selected and assigned in equal numbers to six experimental and control groups. Further, the experimental group would be assigned to some six to eight patrols to avoid constituting a majority, and the best instructors would be assigned to these patrols to control on instructor variability and to assure a strong stimulus (my phrase). Through randomization, one eliminates the need for pre-testing (hopefully, one has randomly distributed pretreatment differences) and sex and treatment differences can be measured independently and in interaction by using a two-factor analysis of variance. This study would use non-intrusive data collection (grade point average, extracurricular activities, and adjustment ratings by others).

A second study, a time series study in which each student is given a questionnaire once, would be designed so that before-after measures would not be confounded by "learning" and would be relatively impermeable to "historical" factors (to use the language of Stanley and Campbell). The third study would be a participant-observation study.

In addition to the design outlined above, the authors report on scale construction. They used variates chosen after consultation with staff (and validated through staff participation), including self-esteem, self-awareness, self-assertion, and acceptance of others to construct scales which were statistically reliable and valid.

This proposed study takes account of the literature on research design in a straightforward and admirable fashion; similarly, the authors have developed scales which go directly to the heart of the objectives of Outward Bound. Their report is concise and well-written and the study they propose quite good.

Mary Lee Smith, Roy Gabriel, James Schott, and William L. Padia,
Evaluation of the Effects of Outward Bound. 1975. Bureau of
Educational Field Services, University of Colorado.

Summary

Actuality is always less than the goal, and the study carried out by Smith, Gabriel, Schott, and Padia falls short of the ideal or model research design they published a few years before this report. Unable to carry out the experimental study they had planned, they carried out a variant of a time series design from which several conclusions emerged, but not as many as they had anticipated. Their summary is to the point.

> It is reasonable to conclude that the Outward Bound course has a positive impact on the participants' self-assertion, i.e., their sense of competence, leadership, and activity. There is also evidence to support the conclusion that Outward Bound affects the participants' level of self-esteem. However, this effect was not found in all three courses. Possible explanations for this inconsistency in effect across course include differential effectiveness of the courses and non-random assignment of participants to the course groups. Some partial, but weak evidence exists for the effect of Outward Bound on participants' acceptance of others. This study failed to show any impact of the program on the participants' self-awareness (pp. 9-10).

The participant observation study carried out by Schott and reported with the help of Smith was, as promised, well-written and concerned with the singular and the unique. Unfortunately, it was not very insightful. Further, no attempt was made to merge the two studies as had been promised in the design report.

Lee Snooks and Daniel Long,
Project Bacstop: E.S.E.A. Title III Evaluative Report 1975-1976.
Mimeographed, 70 pages.

Summary

Project BACSTOP was organized to counteract racial strife in the Battle Creek School District. This report deals with BACSTOP at Northwestern Junior High School, the most racially troubled school in the district with a population 55 percent white and 45 percent black. The BACSTOP program consisted of such outdoor activities as the ropes course, the wall and beam obstacle courses, backpacking, cross-country skiing, winter camping, dual solo (one black, one white student), and a canoe trip. Following the suggestions of an earlier evaluation team, the researchers list a number of concerns. Among the most important concerns was the use of comparison schools (Southwestern, a second BACSTOP school, and Southeastern, a control school). No attempt was made to compare results from the earlier evaluation with results from this one because of differences in social background variables and length of BACSTOP programming.

In highly logical fashion, Snooks and Long proceed in their report from one evaluation objective to another by first presenting the problem, then justifying it; then, in a later section (or sections, depending upon how one reads the second part of Chapter III), by re-reviewing objectives and operational definitions and presenting results. For our purposes, the program objectives, the results, and comments on the methodologies employed are germaine. Thus, Product Objective I. "Seventh grade students will display an increased level of positive biracial interaction with members of the opposite race throughout the school year." Using five types of measures and a pre-post design, the authors report results measure by measure and with the interesting (if not understandable caveat) that "percentage increases were large enough to create statistical significance but did not due to the evaluation design itself." The reasons for this conclusion are presented on page 62 and make no sense. Nonetheless, to take the measures in turn, the researchers found an increase in biracial choices, but not a significant one, and stated that they and the classroom teachers "felt...that a greater percentage of biracial choice might have occurred if students were more capable of spelling names!" Since ability to write out names offset the measure employed next, that is, choosing to sit next to a member of the opposite race, the authors report that the results are not statistically significant but say the following:

> A total increase of 6.07, though not statistically significant, is significant when one considers the dynamics involved in this measure. The fact that any student picks another student, of another race, in front of class-mates is an increasing phenomenon illustrated by the above measurement (six) (p. 21).

It is difficult to continue with a description of the results reported for Northwestern since there are many more problems; for example, see pages 22 (para. 1 and 2), 26 (para. 1), 28 (para. c) and 35 (where significance is not reported for a key measure).

The report on comparisons among the schools (pp. 48 ff.) are confusing, too. Unfortunately, a carefully detailed outline of program objectives and operational measures was bollixed by naive statistical manipulations and an inconsistent attitude toward measures of statistical significance. The study did not produce results or information.

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James Merit Stuckey,
Changes in Self-Descriptions of Teachers as a Result of Outward Bound Experience. 1974. Unpublished dissertation, The American University.

Summary

Stuckey conducted a study of thirty-nine participants in Outward Bound at DOBC and at COBS during Summer 1970. He posited at the outset that there would be a relationship between sex, place, and age and several factors or scales of Gough's adjective checklist, namely, self-confidence, self-control, personal adjustment, dominance, endurance, intraception, nurturance, and abasement. His results indicated no such significant direct or main effects, although there were several significant interaction effects; however, these had not been specified in advance. Q-sorts of the ACL statements proved insignificant, also.

The foregoing is, I submit, a fair description of an overcomplicated statement in a rather long dissertation. Not having paid attention to why he expected significant results, that is, not having given thought to the interpretation of the data in advance of obtaining them, Stuckey's findings are suspect and incomplete. No reference is made to the use of the ACL in other researches on Outward Bound, nor to the findings from the use of other scales purporting to measure many of the same kinds of factors. The description of Outward Bound, especially Kurt Hahn's background and work are quite good, but the empirical contribution is hampered by a lack of thoughtfulness.

Sveinn A. Thorvaldson,
"Centre Creek: An In-Service Report." 1971. Unpublished, mimeographed, 25 pages plus references.

Summary

This is a wordy, convoluted report which seems to say that a program entitled DASH (development of attitudes, skills, and habits) modelled along Outward Bound lines and in use at Centre Creek Correctional Forest Camp has only minor positive impact on participants. Part of the reason for the confusion in presentation of data and statements is that the study, such as it is, is actually one of BE scores (that is, Base Expectancy Scores, which measure propensity to recidivism) and their relationship to the DASH program, since the young adult offenders were chosen for Centre Creek on the basis of their BE's. These scores have only gross validity properties and the effects of Outward Bound cannot be disentangled from the effects of the selection instrument.

Sveinn A. Thorvaldson and Malcolm A. Matheson,
"The Boulder Bay Experiment." Unpublished, 13 pages, n.d.

Summary

Thorvaldson and Matheson report on an experiment involving two types of correctional forest camps, one conventional (Haney Correctional Centre) and the other organized along Outward Bound lines (Boulder Bay). They matched prisoners (86 from HCC and 111 from BB) on a larger number of dimensions, including Base Expectancy Score, length of sentence, race, and age and found the following for graduates of the program:

	HCC	BB
non-violators	32.9%	48.4%
minor violators	18.4	24.8
major violators	48.7	26.8

These outcomes approach but do not reach statistical significance.

Richard Weider,
"Evaluation Report: Outward Bound Pilot Project." Town of Greece, New York Youth Bureau, Part I and II, September 1975 and February 1976. 16 pages and 8 pages.

Summary

In July 1975, three male and three female teenagers (16-18 years of age) from Greece, New York were enrolled by the Town of Greece in a North Carolina Outward Bound course. The police had referred a number of youths to the city's Youth Bureau because they were dropouts who exhibited behavior problems. Youths finally selected had the lowest scores in the Coopersmith Self-Esteem Inventory which the Youth Bureau employed in its screening process.

At NCOBS, the youths were separated from each other and participated in such standard Outward Bound activities as climbing, rapelling, canoeing, solo, and the twelve-mile marathon. To determine the impact of the program on the youths, the author again administered the Coopersmith SEI after the program and six months later; he also held interviews with two parents and several participants. There was no significant increase in scores on the SEI between the pre- and post-tests; there was a significant increase between the pre-test scores and scores recorded six months after the program. The author also noted improvement in relations with parents and that some of the youths had found jobs, used drugs less, and smoked less.

Wesleyan University,
Program Objectives: Upward Bound, 73-74 Program.

Summary

The Wesleyan University Upward Bound Program, designed to help prepare high school students from poverty backgrounds for college level work, utilizes three sets of objectives and activities: "motivational ignition," academic skill development, and school support program. "Motivational ignition" is a code term for the activities of Outward Bound, the first of the three types of activities in the program, the one on which the other two rest. The reasons for using Outward Bound for this purpose were based on the documented effectiveness of Outward Bound, the conclusions of the Coleman Report, and the experience of Upward Bound with NCOBS. The Outward Bound component is a 21-day course in which students and teachers participate; from here they proceed to a four-week, non-residential academic program. The report asserts that the positive effect of Outward Bound on students--the ability of Outward Bound to ignite motivation--is clearly evident. In a program which aims to ready students for college--to expand communication skills, increase their ability to use outside resources, and diagnose their strengths and weakness--Outward Bound is said to provide the bases of improved self-esteem and improved efficacy which are presumed key to the success of Upward Bound.

Reagh C. Wetmore,
"Influence of Outward Bound school experience on the self-concept of adolescent boys." 1972. Abstract of dissertation, Boston University School of Education.

Summary

Wetmore conducted a study of 272 adolescent boys between the ages of 15 1/2 and 19 1/2 who participated in four separate 26-day courses at HIOBS which included wilderness instruction, solo, lectures, discussion, and physical conditioning. He used several methods to collect data: the Tennessee Self-Concept Scale (administered the first and last day of the course and again six months later); the Osgood Semantic Differential Scale; and student critiques. On the Tennessee Scale items he found significant changes for the various self scores (physical, moral, family, social, etc.) with the exception of self-satisfaction. (A closer look at his tables reveals this to be an unreliable item, that is one with enormous variance on the first test and "expected" variance on the second.) Six months later fewer of these items were significant (here the problem may be numbers of subjects reduced to 124 thereby reducing significantly the number of degrees of freedom of the _t_ tests between correlated items). He found no relationship between _change_ in self-concept and social background, leading to the conclusion that Outward Bound can be employed successfully with boys from rather different backgrounds. He found a close relationship between instructors ratings (using the semantic differential scales) and the Tennessee Scale data. From his questionnaire to the participants he found that 95 percent were favorable to the program six months after the course had ended.

Even with the absence of control groups, the data as a whole seem consistent with the findings from other studies, especially with respect to increase in self-confidence and improvement in self-identity and interpersonal relations.

Karl R. White,
"What a Small Boy and a Hammer Have to Do With Evaluative Research."
In Betty van der Smissen, Research Camping and Environmental Education,
Penn State HPER Series, No. 11, pp. 197-217.

Summary

White reviews a range of approaches to evaluation and then briefly describes an ideal research design for a study of Outward Bound. Readers familiar with the literature on evaluation research will recognize his review as standard; they also will recognize that a review of this sort, while promising to be comprehensive and informative, delivers much more on the first count than on the second. The author's description of evaluation methodologies does little to prepare the reader for the detail of variable identification, instrument construction, and the choice of various design components (participant observation, time series analysis, and true experimental design). This essay demonstrates that general discussion about evaluation is almost totally divorced from design, and that in the face of alternatives, one does not choose among approaches to evaluation but selects a variety of techniques to assure that all the bases have been touched; that all the methodologies that can be utilized have been employed. There is no discussion of constraints -- time and money, for example -- and no mention of the peculiar characteristics of Outward Bound, except for the assertion of psychological outcome variables. Yet given the paucity of articles dealing directly with research design as a topic in its own right, this work deserves a reading -- a careful reading.

Herb C. Willman, Jr. and Ron Y. R. Chun,
"Homeward Bound: An Alternative to the Institutionalization of Adjudicated Juvenile Offenders." Federal Probation (September 1973), 52-58.

Summary

Following a brief historical review of reform schools and the various therapies they used, Willman and Chun describe the Colorado Outward Bound School's program and then the Outward Bound--or Homeward Bound--Program of the Massachusetts Department of Youth Services and its relationship to other Outward Bound programs. After describing every part of the program, the authors report several research results based on a random assignment of youths to Homeward Bound or a training school (Lyman school) on a "space available basis." On the major indicator of recidivism, Willman and Chun found that "...20.8 percent of the Homeward Bound group recidivated as opposed to 42.7 percent of the control group " (p. 56). The authors reported that "background characteristics" were not dissimilar for Homeward Bound and Lyman School participants (178 and 75 boys, respectively). Without benefit of statistical tests or, at least in some cases, numbers, the authors offered observations on "several interesting factors," namely: that recidivists among Homeward Bound participants did so later than those in attendance at Lyman; that success in Homeward Bound was positively related to age and highest grade in school, negatively related to treatment of "separate points," and strongly related to various categories of offense. Because the authors borrowed so heavily from Kelly and Baer for their conclusions and did not offer many of their own, it is difficult to assess the findings specifically in relationship to the study's subjects, design, and its strengths and limitations. Indeed, the design of the study is minimal and the report of research results is bareboned and thin. Perhaps less talk about Outward Bound in general and more talk about the program as it relates to research design and research questions would have enabled the authors to get at some of the details of the process of Outward Bound, not just gross measures or outcomes.

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Adventure Curriculum: Physical Education

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7 This physical education curriculum was designed by Project Adventure, an ESEA Title III Project based at Hamilton-Wenham Regional High School in Hamilton, Mass. It emerged out of the Project's efforts to translate aspects of Outward Bound into the ongoing curriculum of a public high school. The book can serve as a full-year curriculum, as a construction manual for building a ropes course, or as a starting point for innovation. It is meant to be used in part, as a whole, or interspersed with other units on health, first aid or even mountaineering.

These learning goals are:

1. To increase the participant's sense of personal confidence.
2. To increase mutual support within a group.
3. To develop an increased level of agility and physical coordination.
4. To develop an increased joy in one's physical self and in being with others.

8 5. To develop an increased familiarity and identification with the natural world.

Daniel J. Baer, Peter J. Jacobs, and Francis E. Carr,
"Instructors' ratings of delinquents after Outward Bound survival training and subsequent recidivism." Unpublished paper, 16 pages, n.d.

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1 Summary. After participating in an Outward Bound survival training course, 60 male delinquents were evaluated by patrol leaders. Successful students were awarded a certificate and all Ss were then paroled. A significant association was found between nonrecidivism within a five-year period and the awarding of a certificate. Principal components analysis of a 40-item rating scale completed by the patrol leaders yielded six factors. Significant correlations were found between the factor scores of Maturity, Leadership, and Effort, with nonrecidivism. Results suggest that a rating based on Outward Bound performance is a long term prediction of recidivism.

2 The purpose of the present study was to evaluate the relationship between instructors' ratings of delinquents during a short-term survival course and subsequent recidivism within a five year period.

Subjects

Ss were 60 male delinquents committed to the Massachusetts Division of Youth Service during the Spring of 1966. Only volunteers from this group 15.5 to 17.5 years in age, in good physical health, without severe psychopathology, and not mentally retarded participated in the Outward Bound Program.

The three Outward Bound Schools involved in the present study were located in Colorado, Minnesota, and Maine.

3 Instructors

The 25 instructors who evaluated Ss had at least two years experience in leading patrols for Outward Bound. They were all highly skilled in outdoor survival techniques and were dedicated workers with young people.

Course Certificate

The certificate awarded at the end of the course was contingent upon the personal growth and attitude of the participant as well as the minimum completion of course requirements. Each successful candidate was publicly presented the certificate on the last day of the course as a symbol of his achievement and he was fully aware of its significance.

3/4 Rating Scale

The Instructor Rating Scale (Kelly & Baer, 1968) has 40 opposing adjective pairs, e.g., decisive-indecisive, sickly-good health, and

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leader-follower. Each item offered a five-point choice with one representing the least favorable and five the most favorable evaluation. The items were selected so as to represent many aspects of personality, attitude, and/physical ability. Odd-even reliability based on the present sample was found to be 0.88 when using the Spearman-Brown prophesy formula.

4 Procedure

Ss participated in a standard 26-day Outward Bound Course during the summer of 1966. They were assigned to one of nine patrols, each having ten participants including non-delinquents. At the end of the course students were either awarded or not awarded the certificate and instructors completed the Instructor Rating Scale for delinquents on their patrols. All Ss were then paroled and returned to their homes.

A delinquent was identified as recidivist if within the five year period from parole he was recommitted to a state training school or penal institution either for a new adjudicated offense or a parole violation. This information was obtained from the Division of Youth Service as well as the files of the Massachusetts Commission on Probation.

Table 1 summarizes the results of the awarding of the certificate and recidivism. While 15 of the 50 (30%) who received the certificate recidivated, 9 of the 10 (90%) of those who did not receive the certificate were recommitted.

5 With one exception all loadings were positive indicating that individuals who were rated favorably on the adjective pairs were also high on the factor or trait represented by this factor.

6 From Table 3 it may be seen that all six factors were significantly related to the awarding of the certificate while only Maturity, Leadership, and Effort were associated with recidivism.

9 ...Outward Bound provides correctional system officials an effective and economical method of identifying delinquents least likely to respond to rehabilitation.

James T. Barter,
"The Effect of the Outward Bound Experience Upon the Self-Image of Adolescent Boys." Preliminary draft, 8 pages.

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2/3 Methodology

The staff of Outward Bound share certain assumptions about the effect of the Outward Bound experience upon young men. Many of these assumptions directly relate to the ways in which experience brings about an alteration of the individual's self-image. For many boys, it is felt that the Outward Bound experience brings about a more realistic appraisal of self-worth, with an awareness of growth and capability as well as an appreciation of personal shortcomings and an increase in flexibility and self-motivation. // The deliberate emphasis upon physical stress is felt to lead to an increased mastery of self, a growth of self-discipline, and a growth of courage resulting from the necessity of functioning in spite of fear.

3 The aim of this research project was to try and validate some of these assumptions about growth and change in self-image as a result of participation in an Outward Bound Course. It was also hoped that one might be able to define which areas of self-image are affected by the Outward Bound experience. The Adolescent Self-Image Questionnaire developed by Offer and Sabshin (1963) was felt to be a suitable and standardized instrument for this purpose.

This questionnaire was developed as part of a project to study the psychological development of normal boys. It contains 130 statements, each of which is to be answered on a six point scale, which ranges from, describes me very well, to does not describe me at all. The questionnaire is arranged in such a way that the higher the score the better the adjustment. The 130 items are divided up into eleven scales, each of which is designed to tap significant areas in the psychological world of the adolescent. The scales are:

1.	Impulse Control	(10 items)
2.	Emotional Tone	(10 items)
3.	Body and Self-Image	(10 items)
4.	Social Relations	(10 items)
5.	Morals	(10 items)
6.	Sexual Attitudes	(10 items)
7.	Family Relations	(20 items)
8.	External Mastery	(10 items)
9.	Vocational and Educational Goals	(10 items)
10.	Psychopathology	(15 items)
11.	Superior Adjustment	(15 items)

4 The experimental design was to have each boy fill out the Self-Image Questionnaire before he left home and again at the completion of the

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Outward Bound course. The difference in each score on each scale could then be compared for statistical significance. Matched pairs of questionnaires were available for 207 boys and are the basis for the statistical analysis that follows.

5 There was a consistent decrease in the mean score between the pre-COBS questionnaire, and the post-COBS questionnaire on all eleven scales. (Table III) The Offer and Sabshin Adolescent Self-Image Questionnaire is designed so that the higher the score, the better the adjustment. These results would then seem to indicate that the adolescent self-image (as measured on this test) is decreased rather than increased as a result of the Outward Bound experience. One must then ask how significant are these differences.

5/6 There are two kinds of courses at the Colorado Outward Bound School, the mobile courses, and the in-camp courses. The mobile courses operate entirely away from the main camp. They are supplied from the main camp, but the boys spend their entire time out in the mountains. We were interested in determining if there were any demonstrable differences between these two kinds of courses. An analysis of varience on the mean change in score // on the eleven scales of the self-image questionnaire for each course failed to reveal significance differences between them. Therefore, we can assume that there are no differences between the degree of change observed in the mobile courses compared to the degree of change observed in the courses operated out of the main camp.

Arthur Bernstein,
"Wilderness as a Therapeutic Behavior Setting," Therapeutic
Recreation Journal (Fourth Quarter, 1972), 160-161, 185.

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160 In the course of research regarding the psychological impact of a nature dominated or wilderness environment, it was theorized that the configuration of stimuli found in wilderness are conducive to improved self-sufficient functioning. This has led to the suggestion of a program involving the use of wilderness as a tool in the treatment of fairly young chronic schizophrenics.

Wilderness stimuli include a low density of human population, low levels of noise and movement, and a slow rate of change. Therefore, it offers a high degree of predictability and little that is conflicting or ambiguous.

These stimuli constitute a "behavior setting" which evokes certain kinds of responses, (Bechtel, 1970). Specifically, "coping" behavior is evoked over "defensive" behavior.

Defensive behavior is most demanded in settings where the social environment is dominant over the physical environment.

160 / 161 By contrast, wilderness tends to evoke coping behavior. In areas of extremely limiting topography, it is impossible // to impose the strong social controls which are necessary in an urban environment. This is undoubtedly why there are no large cities on mountain summits.

161 The creation of a feeling on the part of the patient that a staff member may be at least somewhat dependent upon him, as well as vice-versa, for the completion of the venture should do much to alter the patient's self-image. Extensive supervision would be counter-productive. The physical environment itself should exert control and supervision over the patients.

Given that wilderness presents a behavior setting conducive to improved self-sufficient functioning, it should be an ideal place in which to introduce a behavior modification program designed to bring about a more lasting change. Such a program would be related to the specific needs of schizophrenics in terms of the following conditioning principles.

1. Strong and immediate reinforcements results in motivation to repeat behavior (Bandura, 1969). Wilderness offers this by providing a neutral, low intensity background.
2. Positive reinforcement permits greater possibility for new learning (Bandura, 1969). It shall become clear why wilderness offers this.
3. The ultimate positive reinforcement is mastery or control over one's environment (White, Sivadon, 1970).

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4. Aggression and expression are better than repression because they allow for a wider behavior range and more immediate reinforcement (Ullmann, 1969). Institutions tend to reinforce passivity, dependency, and lack of initiative. Wilderness tends to reinforce the opposite.

5. An egalitarian, undermanned group yields positive reinforcement from participation in the group (Bechtel, 1970). In wilderness groups almost have to be so structured and participation is demanded.

6. New skills are best learned incrementally with reinforcement at each step (Bandura, 1969). Wilderness is an ideal setting for this because of the absence of inhibiting social pressures and competing stimuli.

161/185 7. Threatening situations can similarly be overcome by beginning with an unthreatening environment with minimal // group demands and building to more demanding environments and increasingly challenging tasks requiring more and more teamwork. However, the physical environment must remain dominant and the group small and egalitarian.

It is being argued here that a program based on that of the Outward Bound Schools of America employing undermanned, egalitarian groups in a wilderness setting incrementally surmounting survival level tasks, could successfully be applied to the problems of chronic schizophrenics.

On a more pragmatic level, the concept upon which this argument is based, that settings where the physical environment dominates over the social environment tend to elicit coping behavior and therefore improved self-sufficient functioning, can be helpful in planning therapeutic programs for patients where withdrawal, dependency, and poor self-image are a problem.

Samuel Bernstein,
The Relationship of Antecedent Variables and Process Variables to Differential Outcome in a Stress-Challenge Program. 1973.
Unpublished dissertation, Southern Illinois University.

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1 One such program that merits closer scrutiny is that commonly known as "Outward Bound" or "Stress-Challenge" program. It has become a relatively popular program of choice in the juvenile corrections field--that is, for those agencies or communities that can afford such an expensive undertaking. In a later section it will be noted that a number of studies have been completed showing the statistical superiority of the Stress-Challenge program over institutionalization placement on such outcome variables as recidivism and self-concept. Yet, the superiority is a group one--statistically significant differences were found--but for certain individuals the differences were not that striking or were nonexistent. In fact, some subjects did worse on post evaluation indices.

2 Why the greater increase in variability for the experimental (treatment) group than is usually observed for the control (no-treatment) group? Have investigators given the kind of attention to differential performance of subjects within a group that the phenomenon deserves? Why, for instance, do certain youngsters show such positive gains as a result of their Outward Bound experience and others do not? What environmental and/or personal factors related to subjects is predictive of success or failure? Since Outward Bound has now demonstrated that successes outweigh the failures, it seems timely to study the activity itself. What are those subjects like who succeed? Who fail? Are there conditions in the program itself (process) that reach some subjects and not others? Answers to some of the questions listed above would not only help improve selection of subjects for the program, but it would also identify process changes that should be instituted.

3 Among the variables which were examined were:

(a) Socio-demographic data;

(b) Self-reports by participants on the Tennessee Self-Concept Scale (Fitts, 1965), the Jessor Expectancy Scale (1968), and the Jesness Inventory (1966);

(c) Parents' perceptions of participants on the Modified Tennessee Scale (1965);

(d) Participants' estimates of their likely performance on the major Stress-Challenge tasks, rated on the Rulo Expectancy Scale (1973);

(e) Trainers' estimates of participants' likely performance on the tasks, as rated also on the Rulo Expectancy Scale;

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(f) Participants' reactions to the trainers on the Barrett-Lennard Relationship Inventory (1964);

(g) Trainers' ratings of participants' social behavior on the Jesness Behavior Checklist (1971).

Antecedent variables are those factors which existed prior to the start of the program. Included as antecedent variables in this study are the indices derived from the three self-report instruments, the socio-demographic data, the parents' perceptions of the participant, and the participants' estimates of their likely performance--the first four in the list above.

3/4 Process variables are factors which came into existence during the program, undoubtedly due to some unknown interactions of antecedent variables. These include participants' reactions to the trainers, trainers' estimates of participants' task performance, and trainers' ratings of participants' social behavior. These constitute the last three items on the above list, and the instruments noted are used as operational measures // of the variables.

12 Self-Report and Offenders

It should be again made clear that this study is not concerned with confirming the effectiveness of a Stress-Challenge program with young offenders; rather, the purpose is to study more intensively the correlates (characteristics) of differential performance or change in subjects. For the purpose of this study it is assumed that the findings of previous investigators will hold, namely:

(a) Young offenders as a group have a lower reported self-concept than young people in general;

(b) Subjects participating in Stress-Challenge programs will increase their mean score more significantly than those who did not; and

(c) There is considerably more variability on such self-reports in the treatment groups than in no-treatment groups.

20 ...past studies have failed to select and isolate operationally the meaningful antecedent and process variables (correlates) that are related to outcome. The present study, therefore, proposed to add to the identification of stable, measurable correlates and interaction conditions that are related to differential performance in a Stress-Challenge program.

Questions

The questions answered in this study were:

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1. Are there relationships among variables that may help in the prediction of successful program outcome?

2. Are there differences between groups who showed an increase in self-report measures and groups who showed a decrease on self-report measures on any of the antecedent or process variables?

3. What are the factors that bear significant relationships with other performance indices--i.e., ratings of performance on Stress-Challenge tasks and ratings of social/personal behaviors?

21 Thirty boys between the ages of 12 and 16 were selected to participate in a Stress-Challenge program over a two-month period, February and March of 1973. All of them were under supervision of the St. Louis County Juvenile Court, and all were selected for the program according to the usual criteria of the Court for participants. The selection criteria include such factors as (1) appropriate for community supervision and (2) they were appraised as having low self-concepts. Six of the boys were eventually dropped, and they were not included in the statistical results because of incomplete data and legal problems. More specifically, they were separated from the program for the following reasons: three became too ill to continue, and three had to be removed because of their aggressive/assaultive tendencies.

21/22 The fact that 17 were white while only seven were black may introduce some sample bias, since the ratio under supervision is usually three blacks to two whites. A third of the sample came from broken homes--at most a mother or other female relative was the only adult present. The remaining two-thirds had both parents living with them. This seems to be fairly representative of the kind of youngsters that are referred to the Juvenile Court in St. Louis County. Their status in school is also rather // consistent for the target population. That is, six of the 24 were still in school, while 18 had been suspended or had dropped out.

22/23 During the week preceding the start of the program the participants completed the Tennessee Self-Concept Scale (TSCS), the Jesness Inventory (JI), and the Jessor Expectancy Scale (JES) (See Appendix 63); demographic information was collected (See Appendix 60); and the parents were // given the Modified Tennessee Scale (MTS) (See Appendix 69).

23 Participants were divided into brigades, and a trainer and assistant trainer were assigned to each brigade. During the first day of the program and before activities got under way, there was an orientation session. The participants were shown a movie on the various tasks to be undertaken in a Stress-Challenge program. Immediately following the movie the participants completed the Rulo Expectancy of Task Performance Scale (See Appendix 80). That is, they estimated on a 12-point scale how well they expected to do on each of the 10 tasks.

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On the second day, still before the start of the actual activities, the participants rated their trainers on the Barrett-Lennard Relationship Inventory (BLRI) (See Appendix 76), reflecting how the trainers "got across" to them on empathy, congruence, level of regard, and unconditional positive regard. Trainers then completed the Jesness Behavior Checklist (JBC) and the Rulo Expectancy of Task Performance Scale on Ss (See Appendix 84). Trainers and participants at that time had spent a complete day together, but none of the rated tasks had been undertaken.

All participants then began the programmed activities of the 20-day Stress-Challenge program. At the conclusion of the last day of the program Ss completed the TSCS, the JES, the JI, the BLRI, and the Rulo Report on Actual Performance (See Appendix 92). Thirty days after the program ended, parents again completed the MTS. It should be noted that only 12 mothers completed the MTS at this time, resulting in incomplete data, which was not used. Table II depicts the testing schedule (see attached copy).

32 The data in this section are presented to answer the following three general research questions:

1. Are there relationships among variables that may help in the prediction of successful program outcomes as measured by the Tennessee Self-Concept Scale total score and by the Jessor Expectancy Scale?

2. Are there differences between groups who showed an increase on self-report measures and groups who showed a decrease on self-report measures on any of the antecedent or process variables?

3. What are the factors that have significant relationships with other performance indices--i.e., ratings of performance on the Stress-Challenge tasks and ratings of social/personal behaviors?

35 The means on both the recognition and social affiliation scales of the Jessor Expectancy Scale posttests were virtually identical with those from the pretest.

Interrelationships among remaining variable set and Tennessee Self-Concept Scale and Jessor Expectancy Scale. The pretest and posttests configurations among all the test instruments and demographic variables were studied in detail. The relationships of antecedent and process variables to the posttest scores on the TSCS were of primary interest, since it was this instrument which most clearly distinguished the group as low in self-concept at the outset. However, only one statistically significant correlation was found, aside from that between the pretest and the posttest. This was the relationship between the Modified Tennessee Scale completed by the participants' mothers before the program and the Tennessee Scale posttests. Mothers' perceptions of the Ss were positively related to Ss post-test TSCS score.

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TABLE II

Schedule of Tests

Pre-Program	First Day *	Second Day **	Last Day	30 Days Later
Child Tennessee Self Concept Jessor Expectancy Jesness Inventory Demographic Form Parents Modified Tennessee	Child Rulo Expectancy of Task Performance	Child Barrett-Lennard Relationship Inventory Trainer Jesness Behavior Checklist Rulo Expectancy of Task Performance	Child Tennessee Self Concept Jessor Expectancy Jesness Inventory Barrett-Lennard Relationship Inventory Rulo Report on Actual Task Performance Trainer Jesness Behavior Checklist Rulo Report on Actual Task Performance	Parents Modified Tennessee

* Orientation only **Pre-Vocational

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37 Changes on Behavior Checklist. One of the outcome variables of this study was the social/personal behavior ratings of the Ss by their trainers--scores on the Jesness Behavior Checklist. While the correlation matrix revealed that this scale was not significantly related to any of the independent/predictor variables, a rather peculiar observation was noted between pretests and posttests. Those rated high initially by the trainers tended to be rated lower on the posttests and vice versa.

40 Barrett-Lennard scales' relation to posttest Rulo. Among the other instruments, only the Barrett-Lennard scales were found to be associated with the participants' posttest self-ratings. The empathy and congruence scales, as measured before the program, showed strong patterns of association with the 10 task ratings. The set of correlation coefficients is shown in Table XII.

41 The Barrett-Lennard empathy scale was significantly correlated with three of the trainers' ten posttest ratings on the Rulo instrument.

42 Demographic variables. Among the demographic factors there were few notable patterns.

46 Implications of the Study for Prediction of Self-Concept Change as a Consequence of Stress-Challenge

For predictive purposes, the findings related to Question 2 seem to be particularly valuable. Individuals who composed the Tennessee Self-Concept Scale high-gain group were significantly lower on the asocial index (Jesness Inventory) under both pre and posttesting when compared with the non-high-gain group. The observed difference between the two groups approached a full standard deviation. (See Table VIII for these findings.) The high-gain group's mean of 60.17 on the asocial index is well within the range of the Jesness norms for delinquents, whereas the other group mean of 43.83 is not within this range.

51-55 See extract which follows.

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SUMMARY

Introduction

The literature indicates that Outward Bound programs as an alternative to institutionalization are statistically superior on such outcome variables as self-concept and recidivism. Recently there has been interest in studying more in depth the factors that account for differential performance within a treatment group, inasmuch as writers in psychotherapy have noted that within the treatment group there is usually greater variability than within the control or no-treatment group.

The present study examined the factors in a Stress-Challenge program that may account for differential performance. Factors studied in relation to differential performance in a Stress-Challenge program (i.e., changes in self-reports and ratings by others) were antecedent variables (those which existed prior to the start of the program), such as (a) socio-demographic data, (b) self-reports, (c) participants' estimates of their likely task performance, and (d) parents' perceptions of the participants, and process variables (those which came into existance during the program), such as (a) trainers' estimates of the participants' likely task performance, (b) participants' reactions to the trainers, and (c) trainers' ratings of social behavior.

Methods

Complete data was collected and studied for a sample population of 24 youths under supervision of the St. Louis County Juvenile Court who were referred by the Court to the Stress-Challenge program because of (a) need of supervision and (b) low self-concepts. The sample population varied on a number of socio-demographic indices.

During the week preceding the start of the 20-day Stress-Challenge program socio-demographic data was collected on all participants, and each participant completed three self-reports: (a) the Tennessee Self-Concept Scale, (b) the Jessor Expectancy Scale, and (c) the Jesness Inventory. During the same week the parents completed the Modified Tennessee Scale.

During the first day of the program and before activities got under way, all participants were shown a movie on the various tasks to be undertaken in the program. Immediately following the movie the participants completed the Rulo Expectancy Scale (a measure of expected task performance). At the end of the second day the participants rated their trainers on the Barrett-Lennard Relationship Inventory. The trainers completed the Jesness Behavior Checklist and the Rulo Expectancy Scale (trainers' expectancy of participants' task performance).

At the end of the last day of the program, the twentieth day, the participants completed the self-reports: (a) the Tennessee Self-Concept Scale, (b) the Jessor Expectancy Scale, and (c) the Jesness Inventory, as well as (d) the Barrett-Lennard Relationship Inventory as to their reactions to their trainers, and (e) the Rulo Report of Actual Task Performance. The trainers on the last day completed the Jesness Behavior Checklist and the Rulo Report of Actual Task Performance of participants.

Questions

The questions answered in this study were:

1. Are there relationships among variables that may help in the prediction of successful program outcome?
2. Are there differences between groups who showed an increase on self-report measures and groups who showed a decrease on self-report measures on any of the antecedent or process variables?

3. What are the factors that bear significant relationships with other performance indices—i.e., ratings of performance on Stress-Challenge tasks and ratings of social behavior?

In order to answer the above three questions two types of analysis were used. The first was zero-order correlations among all variables. The second was t-test evaluations of simple means, broken down according to changes from pretest to posttest on the criterion variables.

Answers to the Three Questions

1. Aside from a high correlation between the pretest and the posttest of the Tennessee Self-Concept Scale, only one statistically significant correlation was found. This was the relationship between the Modified Tennessee Scale completed by the participants' mothers before the program and the participants' post Tennessee Self-Concept Scale.
2. The findings showed that those who showed an increase on the Tennessee Self-Concept Scale were lower on the pretest, though the difference was short of statistical significance, and they were significantly higher on the posttest. Those who gained started in the low range and ended near the mean. Those who showed the significant gain on the TSCS were significantly higher on the pretest Jesness Inventory asocial index and also on the posttest asocial index. High scores on this scale are indicative of poor socialization. The findings indicated that those who had an increase on the TSCS rated themselves significantly lower on the Stress-Challenge tasks on the posttest Rulo Report on Task Performance. The gain group on the TSCS was significantly lower than the others on all Barrett-Lennard pretest scales. The gain

group perceived their trainers in a less favorable light than did the others.

3. The findings indicated that when the subjects were divided on the post Jesness Behavior Checklist between those who gained and those who decreased on social/personal behavior, that the increase group tended also to value their trainers more than those in the decrease group. Reciprocity or mutual "patting" seemed to prevail after the Stress-Challenge experience.

Implications

Individuals who comprised the TSCS high-gain group were significantly lower on the asocial index (Jesness Inventory) on both pretesting and posttesting when compared with the non-gain group. Moreover, the asocial characteristics of the high-gain group were consistent with their pretest ratings of the trainers on the Barrett-Lennard Relationship Inventory. The group expressed significantly less empathy, unconditionality, and congruence than did the non-gain group. Essentially, the high-gain group did not seem to relate well to others. The findings suggest that the Stress-Challenge program has the greatest impact on the self-concept index for the non-social delinquent.

The high-gain group on the pretest of the TSCS was one and one-half standard deviations below the Tennessee norm group. On the posttest this difference was cut in half and with a decrease of within-group variance. Conversely, the non-gain group was one standard deviation below the norm group on the pretest, but one and one-half standard deviations below the norm group on the posttest. This decrease was accompanied by an increase in within-group variance.

The implications of the above data indicate that Stress-Challenge tasks yield positive change on self-concept for low self-concept, asocial delinquents, and the Stress-Challenge tasks seem to have a detrimental effect upon the self-concept of the delinquent who is not asocial.

L. J. Borstelmann,
"Psychological Readiness for and Change Associated with the Outward Bound Program: North Carolina Outward Bound School." Mimeographed, 8 pages plus a table.

General Notes

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2 We at the North Carolina School have made a very modest effort at standardized evaluations with one of our courses this summer. The present report is a preliminary look at the results. To start with, we needed assessment instruments that would fulfill three requirements: apparent relevance to our program goals, feasibility in time and effort, sufficient information about the measures to warrant some confidence in their meaning. Such measures should serve all of the following purposes: provide the students a means of self-examination, provide us with descriptive data for defining our student groups with reference to other known samples of youth, measure the nature and extent of change evident to the students and their instructors. These considerations led to the selection of three measures dealing with values, self-determination and personal traits.

Finally, the crew instructors were asked to sort their crews into three groups of relative progress achieved during the course, yielding a distribution of 23 students rated A, 14 as B, and 10 as C. The present report is based on a preliminary analysis of the self-determination and values data.

The students of NC-17 are a typical mix of Outward Bound youth, high school and college students, ranging in age from 15 to 23, from an extended geographical spread, parental and sponsor funded.

3 ...in our program we might expect that to the extent that the students experience our program as placing value upon and expecting self-determination, there will be a general effect of reducing their belief in externally controlled outcomes. And that is exactly what we find. The initial scores of the total group range from 1 to 20 with a median average of 8.5. This is very much in line with various samples of high school and college students reported by Rotter. The final scores of our students range from 0 to 16 with a median average of 6.5. Although the pattern of change toward greater belief in internal control is general, the greater shifts tend to be with those who have farther to go with initially high external scores.

That our instructors are indeed reinforcing of a belief in self-determination by being representative models is evident from their own locus of control scores, ranging from 0 to 14 with a median of 6.0. Thus, the total group of students in their final scores closely approaches the initial position of the staff.

It would appear that students who arrive with a clearer conviction about self-determination have more immediate readiness for our program, while those with a lesser conviction have more of a belief shift to make before they can really gear into the program.

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4 Rokeach (3) has been concerned with the importance of values as determinants of behavior and has developed a useful instrument for measurement of value systems. He distinguishes between terminal values, goals or end states to work towards, and instrumental values, ways of behaving. From extended studies he has sorted out two lists of 18 value statements each, one terminal and the other instrumental. These seem to cover the important values that are commonly considered by various groups of people. Since value systems consist of a hierarchial preference for goals and behaviors, the Rokeach Survey of Values measures a subject's having him rank each of the two lists from 1 to 18 in terms of importance to himself. Table 1 presents the two lists of terminal and instrumental values in the order ranked by the instructors with relative rankings by the total student group and each of three groups rated in terms of progress during the course.

4/5 The group patterns for the instructors seem to be quite congruent. The important ways of behaving for them--honest, responsible, courageous, capable, self-controlled--fit very well with their emphasis on accomplishment and self-respect. They are individualists in the sense of ignoring the goals and means of stereotyped conformity. Yet they aspire to friendship as well as freedom. They are more action-oriented and less concerned with abstract thinking; wishing for wisdom though not in a religious sense. Within these general trends there are wide individual differences with regard to such values as equality of // men, excitement, personal and world peace, ambition, independence and nurturance.

5 Now how does our student group order the values upon arrival at the school? How does their hierarchy compare with the staff? And what changes, if any, are evidenced by the students upon completion of the course? We can observe in Table 1 that the students show strong agreement with the staff about the values of lesser importance, but they differ in the patterns of greater emphasis. Thus, the staff place much higher value on accomplishment and give greater weighting to self-respect, wisdom and equality. Conversely, the students place much higher value on mature love and freedom. Further, the students' hierarchy of values remains quite constant, showing the same pattern upon completion of the course. There is a tendency for self-respect to increase in value while mature love shows a decrease. Such minor shifts are certainly in accord with course relevant values. If we assume that value systems are relatively stable over short periods of time, then the present findings of essential constancy confirm that the measure is valid and not simply reflecting fortuitous responses.

5/6 Again turning to Table 1, we can see that Group A, those rated as achieving most in the course, has initial value priorities much closer to the staff in highly relevant respects. Thus, they value accomplishment, self-respect, courage and capability considerably more than the students who do not do as well in the course. Conversely, they value peace, forgiveness and love much less than the other students. Clearly this places them at a marked initial advantage in responding to their instructors, and in turn the staff is likely to respond more positively to them. This

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readily establishes a set of mutual expectations for success that are subsequently manifested and so judged. We should note, however, that these students are not merely mirror reflections of their instructors, since they differ more from the staff in some respects than do the other students. Thus, both independence and inner harmony are uniquely important to this group, // while they place less value on such things as wisdom, family security and quality. All of this indicates a strong sense of integrity and active task orientation, not constrained nor muddled by compassionate concerns for one's fellow man. It would appear that the gung ho boys do best in our program, or at least that we value their performance more.

7 The present evidence suggests these conclusions: (1) How well we do is a function of the initial status of the students. We do a better job with those students who arrive already sharing our own convictions about self-determination and getting on with the job in a cooperative, task-centered manner. We do less well with those who arrive less certain about self-control and more concerned with an individualistic, compassionate, peaceful orientation to life.

(2) We have a general impact on students, moving them towards our own convictions about self-determination and accomplishment.

(3) We may achieve this effect at some cost in terms of other relevant goals--that quality of responsibility represented by affection and forgiveness towards others.

Charles Cataldo,
"Modified Outward Bound Club: A Therapeutic Endeavor for Action Oriented Youths." Unpublished paper, mimeographed.

General Notes

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1 An attempt is made in this paper to assess the extent to which each boy during the trips supplanted with new actions the old behaviors. How long the new actions would endure likely depends on the supports to maintain the actions after the return of the boys to the shelter or elsewhere. This will be assessed. It is the guiding hypothesis of this demonstration that the majority of youths on the trip will make some effort to maintain these new actions in the face of relating to those with whom they had conflicted in the past.

2 This paper will assess also the changes that occurred to a comparable group of adolescents of the shelter who though desiring to go on the trips could not because of space, etc. reasons.

1a A logical question to ask is whether ecological analysis or contextual analysis is involved in the assessment of this program. To answer this question we must examine again the objectives.

2a There should be some element of risk. Note that this conception is at variance with the usual notions of a therapeutic milieu in which most of the elements of living in the habitat are carefully controlled.

Therefore, a feasibility study was embarked on to gain experience as to how to minimize the possibility of overwhelming hazards yet maintain a high level of stimulation.

3 When we realized that at least 1/5 of the admitted youths were AWOL at any one time and that many of these were visiting home or relatives, it became evident that the shelter was being used as a home away from home, a temporary respite. Most hoped to eventually return home.

So it occurred to me that what was necessary was a change of environment wherein the youth will not get secondary gains for maintaining a pattern of behavior. We would support the selection of an environment where there is no need to encroach on others, where one can adjust physical distance to fit mutual needs; and where there is space with no enclosures. To counter the development of a rigid social hierarchy, as tends to occur in total institutions, we would favor environment changes where each and every person's unique qualities would be called forth sooner or later as an asset to the survival of the group.

4 Social ranking would be relative to the situations that change. In other words, the environments would call for each youth to at sometime display his leadership ability. Though the youths may choose new challenges, we should insist that it be outward bound in nature, involve traveling in a way they are unaccustomed to, and be through an area to which they have

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never been. In other words, the group should choose a challenge to complete while exploring an unfamiliar environment. Basically, we are allowing the group to exercise their desires for adventurous play in a new territory where their usual shelter or street adapted skills are of limited value for survival.

5 Ingrained Emotions Surface Blandness ↔ Stereotyped Misperceptions ↔ Triggered Behavioral Reactions ↔ Stimuli of Repetitive Situations

↕ Interplay with ↕

Emotions tied to Increased Competence ↔ Enriched Sensory Experience ↔ Use of New Adaptive Actions ↔ Challenging Situations

The link between the two levels is to be made conscious with the help of the coaches. The coaches can be: at first the adult advisors, later the crew leaders, and finally each person himself. The hope is that the person will increasingly supplant old stereotyped ways with new more adaptive actions. Competence once achieved, it is hoped, will lead one to look for situations that continue to enhance it.

6 In contextual analysis one links a global property such as group cohesion with an individual attribute, such as the tendency to drop out of the group. In an ecological analysis one examines the characteristics of territorial social systems to establish the variety of constraints on and the alternatives for individual behavior. This is a "micro-macro" design. The dependent variables are the characteristics of the territorial social systems, but you seek your explanatory variables not only at the global/aggregate level (such as geographical configurations, distance and concentration factors) but at the level of individual decisions. Both contextual and ecological analysis are concerned with the process of interaction (interchange) between two levels, that of the individual and that of the territorial unit. This project is focused on both levels. On the territorial level we seek to assess the demands of the environment as well as the resources it supplies the individual. How are the environmental demands on each individual mediated by the group? How are the resources available to each individual allocated by the group? On the individual level we go beyond what is usually examined in contextual analysis to assess the adolescents before and after the experience (as well as during) in order to determine the behavioral impact of the experience. Were the differential needs supplied by the environmental resources? In essence one part of our assessment is on the fit made between the environment and the individual as mediated by the group. Another part of the assessment is on the extent to which the individual developed a specific behavior pattern through exposure to the different area units to supplant non-adaptive stereotyped reactive behaviors.

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Page 9 In this paper some data is presented on the children who though members of the club were not selected by their peers for the trip. In future projects a recommended design would be to permit children not on the first trip to have the chance on later trips. Such a design permits one to establish the magnitude of change due to natural events and growth as against the effects of subsequent exposure to the program. Over the summer period, four groups of fourteen youths each were rotated to summer camp for one week stretches. After an initial two day period in the camp, trips to scenic spots throughout the state were organized. The experience was valuable in relation to this program.

results Before considering each child in turn it is advisable to read pertinent background information contained in the appendix. Much of the information was not available to staff prior to the demonstrations but became available over the remaining part of the time period. For the control group, each adolescent is described under the categories of: Target behavior, the frequency, magnitude and duration of such behavior and the conditions that are antecedent to the behavior. The crew members of each crew of the experimental group are also as described. In addition, the likely alternative to the target behavior are set forth along with a modification plan and suggested techniques. Much of this was gradually evolved during the demonstrations. Other charts describe each experimental group member using categories such as: past experience, psychological defense, physiological reactions, coping mechanisms to primarily maintain internal equilibrium and coping actions primarily directed toward the environment.

Conclus. 1. The major conclusion of this demonstration is that a fun filled action program can be so developed to be therapeutic for the participants. Within the short space of a few days the beginnings of major changes in behavior and the linked perceptions of life can occur. Such changes were noted in 4 of the 6 youths of the group that took the trip. Of the 6 youths that remained at the Hall only one sustained a similar major change in behavior and perception during this period.

2. The changes begun on the trip were better sustained when the environment of return for the youths was supportive (of the changes). Although changes were sustained in the long run (over 6 months) for four of the six youths, there were fewer reversals to old behaviors where the return environment was favorable to the change. This was the case for two of the four youths who were upon return to the Hall transferred to programs upstate.

3. Based on the results and on the existence of this program over a six-month period, I make the following recommendations: First, outward bound clubs should be considered not only for the Hall but for another facility such as Spofford. Second, these clubs administratively need strong support from the facility director. In addition, there should be a small committee of staff who meet monthly to give guidance to the program. The chairman of the committee should be a department head person

preferably social service. He would have most direct responsibility for the program as delegated by the agency director. The program being therapeutic in essence is within the professional field of group social work. The club advisor should be a group social worker. This worker should also be linked into the relevant treatment or progress teams of the facility. There should be easy access to both social workers, and child care staff. Third, new club advisors should be trained through actual participation as an apprentice with another club, since some of methods utilized are new to social work.

5. The group should self select itself. The focus should be maintained on the action doing level. The group should do a considerable part of the planning of the trip. A crew structure with crew leaders is an indispensable part of the program. The crew size should be three. A maximum of 3 crews should go on any one trip. Prefer utilizing two crews for the first and second trips.

Each crew preferably should have an adult advisor. One of these advisors may be a volunteer who has waived his right to press suit.

6. Essential to this program is the stimulation that new environments provide. It should be real life and natural. The group should be unfamiliar with the area of travel. The ordeal they seek to do, should be new, novel, and sensational.

7. The advisor has to be able to fit or match the desired environments to the needs of the youths. Better still, he should help them find those experiences most able to impinge on the target behaviors of each member.

Charles Cataldo,
"Modified Outward Bound Project." Unpublished paper, mimeographed, 32 pages.

General Notes

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4 Ecological Impact

More succinctly, let us contrast these two environments:

Concept	Institutional Living	The Dix Wilderness
Space	Constant crowding with others	Few Humans around some crowding of plants in unfavorable growing zones. (alpine zone of life).
Territory	Possessions can be taken with ease — little sense of trespass	Can develop one's own abode. No need to encroach.
Territory	Frequent fighting to keep each other at a distance	Can adjust social distance to fit mutual needs.
Auditory Overstimulation	High level of noise - shouting - loudness	Tranquility - animals seldom noisy.
Space	Limited Space - Hemmed in enclosures	Unlimited space - no enclosures
Space	One can flee to but only slightly less crowded city streets or family quarters	One can flee to solitude
Dominance	Absolute social hierarchy, no democracy - much fight-for status	Relative social possible relative to the situations with change
Homogeneity	Relate to only 1 specie of man and to these mostly with some limited outlook on life - a sameness a repetitiveness	chance to relate to a diversity of life
Sensory Deprivation	A paucity of sensory experiences - same ones repeated	Abundance of sensory experiences
Lack of Social Responsiveness	Few social incentives for growth and development	To not thirst, not hunger, to find shelter are great incentives for growth

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	Lack of Creativity	Lack of equipment and conditions for learning new skills	The environment provides all the materials needed for new survival skills
	Limited Range of Affect	An affective blandness in which pride of accomplishment, praise of self, Esprit de corps, strong sense of remorse and a sense of shame for self are seldom experienced.	To survive requires individual competence and group teamwork. Emotions associated with this task will blossum.
5	Concept	Institutional Living	The Dix Wilderness
	Resultant Body State	High levels of anxiety or tension - Quite a few need tranquilizers	It's not the anxiety of encumbrances that bothers. It's the fear of unknown objects instead

6 "The below listed boys of Jennings Hall do hereby agree to do the following things on the trip":

1. Will hike 25 miles with pack.
2. Will sleep when necessary under the stars.
3. Will eat, at times, natural foods from the area.
4. Will exercise every morning for 15 minutes.
5. Will take 30 minutes instruction each morning.
6. Will stay with the group - so as not to get lost.
7. Will try to complete every task that Mr. Cataldo tries out.
8. Will canoe and horseback ride if the group decides to do so.

6/7 The doctor, after review of the case records, indicated that these children have several features in common: poor education; a tendency to hang around with what parents considered "bad companions"; come from families with many children; and are often the middle child among all // the family siblings. He noted Calvin's desire not to have a home, the time he lived on the streets, and the stealing from stores. He questioned the mental retardation of Gregory Davis; and noted that he had been in special school for the retarded. The doctor noted that he had reached puberty early - prematurely. Of Eric Ortiz, he noted the boy's argumentativeness with his mother and with his brothers. On Wilkins, he noted the boy's chronic school absenteeism; he also noted that the mother was alcoholic and uncooperative.

Looking at the program as a whole Dr. Mansouri gave a number of recommendations: First, the point system must be such so that no boy should feel he failed. The doctor therefore recommended that the points earned be totaled as crew points. A second major recommendation was that we should avoid

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giving the children medication. He felt that Thorazine medication, particularly while hiking will be counter effective. It would be good if each child could manage the entire duration without medication.

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Daily Activities	Points
Waking up in time for breakfast and washing up	3
Morning exercises	3
Breakfast period	3
Training and briefing	3
Trail activity in the AM	3
Lunch break	3
Trail activity in the PM	3
Dinner Period	3
Debriefing	3
Early to sleep	3
	30 points maximum per boy, for a day

14 The adventure was like strange adults taking a tribe of active youths on a hunting expedition. As time went on, the forces of the environs made it necessary to relate with more intensity. To survive required team work. But to be a team was like being a family. The youths displaced the perceptions of their earlier family lives upon the present. To adapt, and that they had to, required them to act through with staff as transferred mother or father figures the way they were used to and to begin to fashion behaviors to supplant often the old. In the end we were no longer strangers, but a group in dynamic interaction.

31a/
32a

4. The Interplay of Self Mastery on One Level and Emotions of Despondency on Another Level

The theory is that in a playful adventurous explorative way we build each youth to a sense of competence in mastering new sports. This includes a oneness of self with a new environment. This path includes the giving of intensive on the spot knowledge and demonstration in the doing. It includes the conveyance of a spirit of man being part and parcel within an ecological framework of life. This sense of competence is demonstrated when a crew leader conveys knowledge as a gift of love to his members. (It's not unlike being Father of the Tribe).

Charles Cataldo

Page 31a/ 32a (cont.)

So far in this explanation the emotions of despondency have been left out. These are the ingrained emotions of worthlessness, infirmity, inadequacy, etc., imparted through earlier interpersonal relationships. The real focus is that while we educate to help him at the same time deal with those emotions of old that arise to defeat the mastering of the challenge. We help him contrast the interpersonal situation of old with the one he faces now. Knowing for example why one suddenly panics in the water (Eric Ortiz) is an important first step in bordering off that emotion as an alien part of self to be dealt with. We help him put that emotion in the original context so that he can begin to keep it from spreading beyond this context. For other youths like Gregory Davis verbalization of past situation of emotional impact while mastering is very unlikely. Instead, it appears he needs a feeling of self mastery, one part of his ego feeling strong, before he can dare to tackle without anxiety over self disintegration the other ego personification of being "stupid," "crazy" and "of no worth keeping." Especially if staff abets the linkage, then out of a little fun filled adventure can come the sustaining competence needed to permit a change in one's habitual ways of handling interpersonal conflicts. Adolescence is normally the last chance time in the life cycle to swing energies to wrought such changes even for those traumatized in earliest of life. This is briefly some of the theory involved in the demonstration. In the evaluation we shall see the extent to which changes have occurred in that habitual mode of interpersonal relatedness bearing on the reason for placement.

Edward Clifford and Miriam Clifford,
"Self-concepts before and after survival training." British Journal of Social and Clinical Psychology 6, (1967), 241-248.

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241 A unique training school, the Outward Bound School has been functioning in the high mountain wilderness area of Colorado. During the summer months, groups of adolescent boys ranging in age from 16 through 21 are enrolled for one month training courses. The boys come from a variety of socioeconomic strata, represent all levels of educational attainment and include a mixture of racial and ethnic backgrounds.

On arrival at the Colorado Outward Bound School the boys are assigned to patrols. Each patrol engages in a variety of vigorous physical conditioning exercises, ranging from bathing in a cold mountain stream in early morning to running, axemanship, and climbing. The object is to build physical stamina and to push each individual to his physical limit. Patrols compete against one another and considerable pressure is exerted upon each boy to produce maximally. Each boy is also responsible for supporting members of his own patrol.

242 ...the primary hypothesis of this study is:
The experience of being challenged to the limit of one's capacities will result in increased feelings of self-worth and competence.

This study will examine this hypothesis in a group of boys who were first seen on entering the school and re-examined at the conclusion of their experience one month later.

Subjects
Boys between the ages of 16 through 21 served as subjects. Of the 50 boys enrolled, complete data was obtained on 36. Because of the difficulties associated with scheduling, there were 14 cases for whom we have either partial or no information. These latter cases are omitted from all analyses presented.

Measures

The Self-Rating Scale This scale consists of fifteen statements about the self, adapted from the work of Dickey (1958, 1961). Each statement is rated on a 7-point scale in terms of how frequently it applies to the self (i.e., all of the time to none of the time). Scores can range from a minimum of fifteen (positive self-acceptance) to a maximum of 105 (negative self-acceptance). The following items are presented in the order they were used.
1. I am entirely self-confident.
2. I expect to succeed in things I do.
3. Life is a strain for me.
4. I think very little of my abilities.

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5. I am satisfied with the way I am.
6. I am a good mixer.
7. I am certainly lacking in self-confidence.
8. I usually feel that life is worth while.
9. I have never felt better in my life than I do now.
10. I certainly feel useless.
11. I feel adequate enough to meet almost any kind of situation.
12. I am not a dependable person.
13. I don't consider myself a very mature person.
14. The things I do aren't very useful.
15. I feel that I am a very stable person.

243 The Self-Description Scale This measure consists of thirty-four adjectives and phrases each of which is rated on a 7-point scale. Ratings are made in terms of similarity of each adjective to the person doing the rating (i.e., exactly like me to exactly unlike me). This measure is also based on the work of Dickey (1958). Scores can range from a low of thirty-four (positive self-description) to a high of 238 (negative self-description). The adjectives are presented in the order they were used.

able to get along with everybody
adaptable
a good leader of others
aggressive
ambitious
athletic
calm
competitive
considerate
capable
bossy
friendly
intellectual
irresponsible
kind
successful
useful
logical
mature
moody
fearful
normal
protective
purposeful
sarcastic (wise off)
self-conscious
self-centered
sensitive
shy
sociable
stable
stubborn
tolerant
well-adjusted

The Ideal Description Scale Subjects are asked to rate each of the above thirty-four adjectives as they would like to be. Scoring is identical to that of the Self-Description Scale.

The Word Meaning Test This measure is a semantic differential based on the work of Osgood (1957) and subsequent experience with asthmatic children (Clifford, 1965). The test contains fifteen concepts rated on nine scales to obtain three factor scores: evaluative (good-bad, clean-dirty, nice-awful); potency (hard-soft, strong-weak, large-small); and activity (still-moving, dull-sharp, slow-fast).

The semantic differential format consists of a concept at the top of each page with the nine adjective pairs separated by a 7-point scale filling

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243 the remainder of the page. An illustrative concept, summer, is used first to make sure the subjects understand the test. The concepts were selected on an a priori basis to reflect dimensions thought to be most relevant to feelings of self-adequacy and self-competence. The following concepts are used.

Me-now	Me-as I would like to be
Success	Failure
Interesting	Dull
Skillful	Clumsy
Health	Frail
Sociable	Shy
Joiner	Loner
Neutral	

With the exception of the Counsellor Rating Scale, all tests were given to the boys once shortly after they arrived at the school, before they started training, and again just prior to their departure at the end of the month. Counsellors filled out their ratings at the end of the month's experience.

244/245 When subgroups are examined, however, it can be shown that the bulk of the change is accounted for by those boys with a relatively poorer self-rating. Although their ratings have become more positive, those // with poorer initial self-concepts maintain their relative positions when compared with those who had better self-concepts on arrival. Differences between the groups are much greater than differences within groups both at the beginning and the end of the experience.

245 The boys rate the ideal-self more positively than they do themselves. Moreover, there is little change in ideal-self ratings over time. Initial and final evaluations are not different and correlate 0.77 with one another. While the differences between the groups tend to parallel the previous findings, i.e. those with better self-concepts tend to have a more positive ideal-concept, these differences are not significant.

The counsellor ratings are of interest as they are the only independent measure in the study. At the termination of the experience, differences between the subgroups still exist. Those with better initial self-ratings are rated as significantly "better" (p. 0.01) by the counsellors than those with poorer initial self-ratings. Of considerable interest is the fact that counsellors' ratings parallel the self-ratings of the boys. The mean scores given by the counsellors and the mean scores on the final self-description scale are remarkably similar.

248 Dramatic and significant changes have taken place in the self-concept itself. Overall, the self is viewed more positively. These effects are not unidirectional, since examination of individual scores show that some boys change in the less positive direction. Moreover, the subgroup with poor initial self-concepts, account for much of the change. It should not be too surprising to find most of the change in this latter group since,

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248 in terms of a scoring continuum, greater fluctuation can be expected. In other words, the "better" group could not become too much better since it was closer to the positive anchoring or end point of the scale.

Persistently, when divided into subgroups, despite similarities in ideal-self ratings, significant differences between them were maintained on self-ratings and self-descriptions. However, it is not a case of the poor becoming poorer and the rich getting richer. Both groups improved in the appropriate directions while they maintained their relative positions. One can argue that improvement in both groups would support the notion of some generality of the effect of the experience.

Thomas R. Collingwood,
"Survival Camping: A Therapeutic Mode for Rehabilitating Problem
Youth." Arkansas Rehabilitation Research and Training Center,
53 pages and references, n.d.

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1 ...prevention and rehabilitation can be concretized into one basic question as to how to facilitate the development of effective and fully functioning youths into effective and fully functioning adults.

2 The need for a total approach to serving problem youth led to a cooperative effort between the Arkansas Rehabilitation Service, Aldersgate Methodist Camp of Little Rock and the Arkansas Rehabilitation Research and Training Center to develop an innovative client service camping program that had the potential to positively affect the "total" person. The end result was the development and implementation of "Camp Challenge," a rugged three week camping program designed as both a client service and as a demonstration project for male problem youth in Arkansas.

Several camping programs have been developed over the years for problem youth. Generally, most of these programs have not been very systematic, not very rugged (recreational in nature), nor integrated into a total prevention or rehabilitation program. However, some camps such as, Outward Bound, Inc., and the Dallas Boys and Girls Adventure Trails have devised some rugged, systematic and integrated programs which have been demonstrated to positively affect problem youth (Kelly and Baer 1968, and Loughmiller 1965). The great expense for such total programs as these, however, could make them impractical for many rehabilitation agencies and counselors to use as a client service.

The basic premise underlying most camping programs is that inherent within the camping and outdoor experience are tremendous therapeutic benefits. However, the therapeutic potentials inherent within a camping experience must be systematically capitalized upon to be functionally relevant in changing problem youth. Without this, a program could be nothing more than a two or three week vacation for a youth.

8 Twenty-one boys between the ages 15-18 started the program with 19 successfully completing it.

It was attempted to secure a matched control sample of similar youths for comparative purposes; however, out of 20 youths it was only possible to obtain complete data on eight. Consequently, there is not a comparative analysis at present.

9 The development of any effective program must account for three major areas: 1) the effectiveness of the staff implementing the program in terms of the functionally relevant skills they have, 2) the effectiveness of the program in terms of its being developed in a systematic manner to accomplish its goals and 3) the effectiveness of the organizational process in terms of the structures and procedures that integrate the staff with the program for optimum helpee gain.

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9 **Staff Selection:**

The key to staff selection is to select those who have the functional skills needed to implement the program.

10 All staff received a week long campcraft and first aid course as part of the Aldersgate Camp pre-camp training. The four leaders also received approximately 10 hours of interpersonal skill training and orientation/familiarization to the clients with the rehabilitation counselors.

11 **Camp Stages:**

The total camp program lasted approximately three weeks. There were four basic stages to the program: 1) basic training, 2) backpacking expedition, 3) counseling and 4) follow through. Out of 21 clients, 19 started and completed the program. Campers and staff were broken down into functional units of six men (one leader and five youths) for a total of four groups.

12 Following the basic training portion of the program, the participants went on a nine day backpacking expedition through the Ozark mountains. Everything they needed to survive they carried on their backs. A portion of their food had to be secured from the land (snakes, polk salad, fish, crayfish, burdock plants, wild berries, sassafras roots and water). Toward the end of the nine days, pairs of participants went on a 24 hour survival by themselves, whereby they had to secure their own shelter, food and fire while alone.

After returning to the resident camp the participants spent two days of group counseling, recreation and equipment clean up.

13/14 At all stages of the program, the demands placed upon the participants were functional. From the very beginning, in resident camp, they had to build their own shelter, cook their own food and function as a unit. This placed a very real demand on them to learn the skills and co cooperate with each other in order to meet day to day necessity needs.

16/17 Aldersgate Methodist Camp was a resident camp which could provide training facilities and staff for the program. The expense of the // program was $3500.00 payable to Aldersgate for equipment, food, staff salaries, insurance and rent of facilities. If the program was procured on an individual client basis, it would run around $175.00 an individual.

23 **Measuring Instruments:**

Physical fitness areas that were measured consisted of four basic categories: 1) cardiovascular functioning as measured by resting pulse rate one minute following the step test, 2) power as measured by time (seconds) to run the 50 yard dash, 3) dynamic strength as measured by the number of situps and pushups one can do and 4) overall fitness as measured by the Kraus-Weber series (4 basic flexibility positions -- score is number of positions one can hold for 10 seconds).

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The body attitude measure was the Body Attitude Scale, a form of the Semantic Differential, developed by Osgood, Suci and Tannenbaum (1957). The scale contains 15 body concepts in which the participants rated bipolar adjectives on a seven point scale for each of the body parts on three dimensions: 1) evaluative (good or bad), 2) potency (strong or weak) and 3) action (active or passive).

23/24 Bills Index of Adjustment and Values (IAV) developed by Bills, Vance and McLean (1951) was given the participants as the self-concept measure. The IAV contains 24 adjectives which were rated by the individuals on a five point scale to yield a: 1) present self-concept score, 2) self- // acceptance score, 3) ideal-self score and 4) ideal-real self discrepancy score.

24/25 The Internal-External Scale developed by Rotter (1966) was also administered the participants to get a measure of their expectancy attitude as to whether they see themselves controlled internally or externally. The test consists of 15 bipolar items (one representing an internal attitude, the other external) of which the participants were to select one of each pair that represented their beliefs. Number of internal and external items checked is their score.

The Jesness' Inventory (1966) was the personality measure employed. The inventory contains 155 true-false items and yields scores on 11 separate dimensions recognized as being important characteristics of delinquent youth populations.

Two behavioral rating scales were employed. The Behavioral Rating Inventory consisted of 31 items (some adopted from the Deveraux Adolescent Behavior Rating Scale, 1967). It is a 7 point scale in which level 1 means that a particular behavior is never emitted to level 7 where the behavior is extremely frequent. Quay's Behavioral Problem Checklist (1967) was also employed. The checklist is a three point scale in which each of 55 items are rated as to whether the item is no problem, a mild problem or a severe problem.

Three more subjective questionnaires were also employed. The Camp Opinion Questionnaire consisted of specific items for the participant to fill out after the camp program in regard to how they viewed it. The Camp Perception Scale was also given the participants following the camp experience. It contains 29 bi-polar adjectives and is a semantic differential type instrument developed by Bavley (1971). Participants // rated each pair of adjectives as to how it described the feeling and meaning of the camp experience. The Program Assessment Questionnaire was developed for the rehabilitation counselors to rate how they viewed the camp program as a change vehicle to help their clients. It was administered to them also following the camp experience.

25 The pre-post assessment results can be viewed on Table 2. The fitness tests indicate that following the three week camping program, the

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participants demonstrated significant decreases in resting pulse rate ($p = .005$), time for the 50 yard dash ($p = .001$) and significant increases in pushups ($p = .05$), situps ($p = .005$) and performance on the Kraus-Weber series ($p = .05$).

25/ 27 In terms of Body Attitude Scale scores the participants demonstrated // significant increases on the evaluative ($p = .05$) and potency dimensions ($p = .05$) and a non-significant increase on the active dimension.

27 The ratings of the participants on the IAV demonstrated a significant increase ($p = .005$) on the present self-concept dimension and non-significant reduction in the discrepancy scores between present and ideal self ratings.

The participants' ratings of internal control significantly increased ($p = .05$) following the camp experience while their ratings of external control demonstrated a significant decrease ($p = .05$).

27/ 28 The mean standard scores for the Jesness Inventory are on Table 3. // The only significant change following the camp program was a significant increase ($p = .05$) on the participant's autism scale score.

28 The participants pre and post behavioral ratings by their parents and counselors with the Behavioral Rating Inventory can be seen in Appendix A. The basic general trend is that there was an increase in the frequency of positive behavior and a decrease in the frequency of negative behaviors. In order to summarize the behavioral ratings into a brief framework, the scale items were categorized according to whether they focused on physical, intellectual or emotional-interpersonal behaviors. Within this framework, the participants demonstrated an increase in positive physical functioning (3.25 to 5.00), intellectual functioning (3.12 to 3.61) and emotional-interpersonal functioning (3.21 to 4.11).

29 The subjective evaluations of the participants' rehabilitation counselors as to general behavioral change and program effects, as measured by the Program Assessment Questionnaire, is in Appendix C. The counselors felt that the program had a definite positive effect upon the youths, especially in terms of increasing their rehabilitation potential. The counselors also rated the participants as having changed for the better on many relevant traits.

The evaluations of the participants themselves in answering the Camp Opinion Questionnaire and the Camp Perception Scale are given in Appendix D and E respectively. Their answer percentages indicate they viewed the program in a positive and therapeutic light, bearing out much of the previous data results. Besides acknowledging some specific sources of gain from the program (i.e. "learned how to deal with people better"), they perceived the total experience and meaning of the experience very positively. The largest percentage of answers on the Camp Perception Scale all tend toward the positive adjectives describing the camp.

Arthur Wellington Conquest, III,
"A Winter Mountaineering Program in an Urban High School."
Unpublished paper, mimeographed.

General Notes

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3 Park East High School is the first community-based high school set up in New York City, and one of the few such in the entire country. While high schools in New York are under the direct jurisdiction of the central Board of Education, Park East was founded by an independent community corporation consisting of parents and community leaders from East Harlem and Yorkville. Today it operates under the joint control of the Board of Education Office of high schools and that community group known as the Committee for a Comprehensive Education Center (CCEC).

Today Park East High School is housed in one of its future permanent sites at 234 East 105th Street - the old Manhattan School of Music building. It has 505 students - about 50% Puerto Rican, 35% Black, and 15% other. It has a staff of three administrators, 34 teachers, 8 interns, five office personnel and 4 security guards.

4 The Park East High School's first winter mountaineering program of 1973 was a collaborative effort with the Stowe school from Stowe, Vermont. The program was an overwhelming success with more than fifty students and staff from both schools challenging each other's environment.

7 Each of the three winter mountaineering programs run during the months of January and February differed slightly from one another. Every course added new information concerning Park East students' reactions to the outdoor techniques and environmental conditions. My continuous evaluation process enabled the program to be increasingly more effective each course for those groups participating in the experience.

The key ingredient to the success of all three expeditions - with the exception of one student - was due to each participating individual having some kind of former contact with Park East High School's eight-week orientation program, which is based on challenging obstacles in and around the New York City area. Many of the Park East Staff attended a number of weekend mini-expeditions during the fall cycle which were specifically designed to prepare them for the challenging experience.

9 The goals of the winter mountaineering program were based on the traditional outward bound residential program. They were:

1. To establish relationships between Park East students and their instructor in a neutral environment. To confront and solve problems together.
2. To create a group identity, a reference group, and learn to work together and to help one another.
3. To enhance the students' self-image by helping them overcome a graded set of physical and mental challenges to the total group.
4. To promote communication through group discussion; better understanding of their own and others' needs, and thereby better human relations.

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5. To provide legitimate adventure as an acceptable release, resulting in a better appreciation of recreation and leisure time activities.
6. To create an understanding of some of the basic factors involved in the decision making process.
7. A sense of the obligation and personal satisfaction involved in being of services to others.

Barry D. Copp, Elizabeth D. Pierson, and Karen Sargent,
"Alternate Semester 1972." Pamphlet.

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1 I. Purpose of Alternate Semester

Alternate Semester was total immersion into a world away from the classroom from February to June. The students moved from the isolation and biting winds of the Maine winter, to the crowds, steel, and cement of Boston, and finally to the quiet calm of spring in rural New England.

When the program actually started in February, there were thirty-five Lincoln-Sudbury students and five students from the Copley Square High School in Boston. The only definite requirements for participation in the program were to be either a junior or senior, to have parental permission and be able to meet high school graduation requirements. Each Lincoln-Sudbury student earned twelve credits. These were divided as follows: two English, two history, two math, two science, two physical education, and two unspecified.

The academic ability and motivation of the students varied considerably. Some were bright, able, and had accomplished much in school; others were potentially competent, but for a variety of reasons had not performed well; a few were not academically oriented. Of the thirty-five Lincoln-Sudbury students who began the program in February, all but one finished in June. We had to ask this one student to leave the program in April because he was unable to meet the expectations of his employer or handle the responsibilities of the program.

2 There were six members of the Lincoln-Sudbury staff who worked with Alternate Semester. Three worked with the program for the entire period. No one was full time; the director was released from three of her four classes; the two assistants were released from two of their five. The remaining staff each participated in the program for one, two or three week periods during which time they were given a substitute for their regular classes.

4 There were five units in the program. The Outward Bound Unit was three weeks and took place in north central Maine; the Environmental Issues Unit was two weeks and took place at Lincoln-Sudbury Regional High School; the Urban Unit which was centered in Boston and the Rural Unit which covered all New England were each five weeks long; finally there was a three week River and Building Unit in Grafton, Vermont. The purpose and content of each unit varied and is explained specifically in the report.

VI. Purpose of this report

In this report the staff has attempted a kind of evaluation in which we summarize and collate the impressions and reactions, praise and criticism of all participants, parents, students, staff, and employers.

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Page 7 Alternate Semester began with Outward Bound -- a three week winter survival course run by the Hurricane Island Outward Bound School at a former logging camp in the Moosehead Lake Region of north central Maine.

The students, according to Outward Bound tradition, were divided into watches (four groups of ten) and remained in these groups throughout the course. Using Grant Farm as a base, the watches went on a series of expeditions, building to a five day final. The course also included a three day solo, instruction in first aid, and lectures on ecology. The primary challenge was learning to work together in the cold.

Outward Bound was perhaps the most overwhelmingly successful unit. It appears in retrospect to be the one which came closest to meeting its goals of establishing group unity, building individual self-confidence, expanding self-awareness, and encouraging appreciation of the wilderness. In the final evaluation session the students felt unanimously that Outward Bound had been essential to Alternate Semester and the best possible way to begin. There were feelings on the part of some that the course could have been more stressful (although an equal number felt it was sufficiently difficult), that the division into four groups sometimes hindered our single group goal (but no one could see an alternative -- the small group is basic to the Outward Bound way), and that the role of the Lincoln-Sudbury staff was somewhat confusing (it was, but this bothered the staff more than the students). Possibly the most significant thing is that four months later, at the end of the program, the students' feelings about Outward Bound remained extremely strong and many in their final evaluations cited ways in which they felt the Outward Bound experience had influenced them throughout the program and perhaps changed them permanently.

11/12 III. Student Final Evaluations

After four months of other experiences, the students in their final evaluations still stress the feeling of group closeness which Outward Bound established; the self-discoveries, increased self-confidence and sensitivity which Outward Bound // initiated, and the impetus which this intense experience gave to the entire semester.

12 7. "By the end of the first week I realized I don't have to suffer; it's all in the mind."

17 IV. Lincoln-Sudbury Staff Evaluation

The Lincoln-Sudbury Staff feels the Outward Bound course did have a very strong effect upon the group and particularly upon certain individuals. It gave the students a collective identity which supported them throughout the term. It also taught them how to work together. A good illustration of this was a simulated population explosion experiment which was conducted by two Boston University psychologists during the Environmental Issues Unit. The expected panic behavior did not occur; the group knew too well how to cope with difficult situations together. And there are ways in which the Outward Bound way carried into the River/Building Unit at the end

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18 More apparent was the way Outward Bound affected individual students. All seemed touched by it in some way. There were no dramatic changes in character, no instant solutions to deeply-rooted personal problems -- it would be naive to expect either -- but there were significant changes in attitude. Several students who came to this experience as loners and outsiders, relaxed, were included and continued throughout the term to be increasingly self-confident. One boy discovered that for him personal satisfaction required involvement; one girl learned she was really a hard worker; another became better able to deal with fear; many left feeling better about themselves in some way -- and their behavior bore witness to these things throughout the semester. Outward Bound held out certain values which were a continual source of personal and group strength.

Another thing Outward Bound did was help break down barriers between staff and students.

23 The two week Environmental Issues Unit was the least successful one in the program. During this time the students were exposed to a continuous series of lectures, films, and activities which acquainted them with a variety of positions on the environmental crisis.

One of the most frequently heard comments was that the unit was "too much like school."

27 Of all the units, the Urban was the most complicated, not only because of the variety of jobs and housing situations, but more importantly because of the very nature of the city.

38 The five week period spent in the city was an individual rather than a group experience; the problems the students faced most often had to be solved alone.

43 The rural unit, more than any of the others was an individual endeavor. Unlike the city, where students still had some obligations to the group and frequent contact with each other, in the Rural Unit, students were dispersed and, in many cases, totally cut off from other members of the group. The intent was for each individual to deal with an unfamiliar situation alone.

44 A very striking thing about the rural jobs is that most involved primarily physical labor. (Even in the teaching placements, two of the students helped run a week long outdoor education program and another helped construct a model Indian village). All responded very well to this. Many describe their work as hard but energizing and stress the satisfaction of tangible results.

57 The River/Building Unit belonged entirely to the students. They planned it; they executed it. The staff interfered as little as possible. It was like an Outward Bound final expedition in its demands upon individual initiative and group responsibility.

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59 There are ways in which the staff was very pleased with the final unit. We felt that to a large degree it was a very successful, autonomous group effort, requiring little staff supervision or support. At the building the students worked energetically and cooperatively, solving all the major construction problems themselves. Enthusiasm reached such a peak in the final week that hammers could be heard fifteen hours a day. Also, there was a wonderful tone to the group in these final weeks -- warm, relaxed, spontaneous, happy.

There are a couple of things though which disappointed us. First was the recurring unwillingness for anyone to assume real leadership. Although this never seemed to bother the students and they did function amazingly well without it, it did bother the staff. It meant that on occasion we had to step in to get things moving. It also meant that the kitchen was a mess and the essential chores were performed repeatedly by the same responsible few.

Second was the question of group unity. We felt some rather strong divisions. Sometimes these divisions worked positively, good honest controversy leading to better mutual understanding, but equally often they led to alienation.

69 Student Evaluations

...They stress two things in particular about the program which they feel were good: one, that it was experience, activity oriented, that they could do "real work" and take actual responsibility for shaping their own education, and two, that they had an arena for exploring and nurturing relationships, for coming to trust and care for other people.

75 We would like to begin with our reservations. The most glaring weakness in the Alternate Semester Program from the staff point of view was the limitation on our time.

Another area of dissatisfaction was the coordination with Boston's Copley Square High School. We had wanted from the beginning to make this a program of urban-suburban cooperation. If the intent was for the students to experience different environments, it made sense for the composition of the group to reflect these environments. But financial difficulties made it impossible for more than five Copley Square students to join the program, and these, because they had to make up missed work, could only take part in certain units.

A matter which was somewhat unsettling to the staff was the ambiguity concerning their roles. A major intent of the program was to give both students and staff a chance to explore new roles, but as stated earlier, this was never really resolved. We were not clearly teachers, nor advisors, nor counselors, nor authority figures, nor parents, nor equals, yet were called upon at times to be all of these.

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Page 76 Our most profound reservations about the program are philosophical. We watch all the praise pour in. Most employers were enthusiastic; many students claim it was the most important thing that has ever happened to them. But we remain skeptical and cautious. We speculate about what this all adds up to and question by what criteria an experience like this can be understood. As a staff who, although still young, are really the product of another system, we cannot avoid feeling threatened on some level by a program which so basically calls the academic approach into question. We see that this program released incredible amounts of productive energy, that the students exercised more self-discipline, wrote more articulately, and showed greater curiosity than they do in most of our classes. And there is no doubt that for some students this provided a very valid learning experience. But, at the same time, we question very seriously an approach which seems so oriented to the concerns of the present, so hostile to academic pursuit and so disinterested in intellectual and cultural heritage.

Solomon Cytrynbaum and Kathy Ken,
"The Connecticut Wilderness Program: A Preliminary Evaluation Report." Submitted to the State of Connecticut Council on Human Services, Hartford, Connecticut, June 1975. Unpublished, mimeographed, 34 pages and appendices.

General Notes

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1 In June, 1974 we were commissioned by the Council on Human Services of the State of Connecticut to evaluate the July-August, 1974 Wilderness School Program. The research had two tasks: 1) to identify, design and assess the utility of various instruments and procedures for evaluating such a program; and 2) to carry out an initial and preliminary evaluative study of the impact of the Connecticut Wilderness School Program including a six month outcome follow-up. This report will summarize the results of our efforts in relation to these two tasks. In what follows, we will briefly describe the theory and objectives underlying the Wilderness School approach, the sample, design and methodologies used in our research, some preliminary findings and some implications for future evaluative studies of such programs.

1/ 2 The theory and rationale underlying the Connecticut Wilderness School Experience was summarized by Jerome Bouchard of the Connecticut Department of Corrections in the program's initial proposal. We quote the appropriate section of this proposal directly as follows: //

"The dynamics behind "Outward Bound," the theories for its apparent successes in changing the attitudes and/or behavior of delinquent youths, as illustrated particularly in the Massachusetts study, are subtle and varied. One theory holds that failure, and the negative self-images resulting therefrom, is a prime contributing factor to delinquency. This theory views the pattern of delinquency as a pattern of failure in many or all of the socially acceptable spheres; school, home peer relationships and a number of others, forcing a refjection of these traditional areas of endeavor and a turn to delinquent behavior in a search for success and self-esteem on the part of the individual.

Subsequent entanglement with the criminal justice system reinforces and enhances already negative self-images, trapping the adolescent in a hopeless circle of rebellion, failure, a lowering of self-esteem, further rebellion...this theory holds that a successful Outward Bound experience exposes such an individual to highly significant socially acceptable success, significant by virtue of the dramatic and challenging context in which it must be achieved. This in turn leads to a re-evaluation of self-worth, a break in the failure syndrome, and a reawakening of identity with socially accepted goals."

3 "The essence of 'wilderness therapy' is in this experience: challenge, the overcoming of a seemingly impossible task, the confrontation of fear, a success experience. It is an opportunity to gain self-reliance, to prove one's worth.... The results are immediate. The task is clear, definable, unavoidable. It is an act of interpersonal interaction as well."

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4 "In the initial phase of the wilderness challenge component the participant will develop a recognition
- --of the satisfactions that arise from cooperation with others
- --of the feelings of others who are perceived as different than ourselves
- --of the fulfillment that results in attacking a problem and overcoming it
- --that there may be more than one acceptable point of view in a situation

4/5 "As time progresses, the particpant willingly
- --listens to others with respect for their views
- --develops tolerance of others with needs and interests of their own
- --accepts differences of race and cultural experience among people
- --is alert toward human values and judgments on life as communicated by others
- --shows preference for problem solutions and 'meanings' conveyed by others //

"At an intermediate stage, the participant first acquiesces and then willingly responds (and ultimately finds satisfaction in responding) to phenomena by
- --participating with others in group activities
- --completing assigned tasks
- --assuming responsibility for duties as a group member
- --seeking new information about a task or skill
- --practicing rules of safety
- --actively and thoughtfully participating in group discussion
- --keeping still when the situation or occasion calls for silence
- --considering the convenience of others in the group
- --seeking solutions to and effectively solving group problems
- --overcoming a personally challenging problem.

"Ultimately, the participant ascribes value to the responses that she/he develops. At this level the participant is said to have internalized, as a result of the participant's own assessment, a way of behaving as a criterion of worth.

"The participant, in this final stage, assumes responsibility for or shows a marked preference for
- --drawing reticent members of a group into conversation and discussion
- --enabling other persons to attain satisfaction of basic needs
- --initiating group action for improvement of a situation
- --confronting challenging situations in a reasoned, intelligent, and creative problem-solving fashion
- --developing a personal and civic code of behavior based on ethical principles
- --revising judgments and changing behavior in the light of evidence." (Beckham, 1975)

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6 Subjects

The subjects in this study were 49 Wilderness students varying in age, race and sex and agency sponsorship who completed the July and August, 1974 Wilderness Programs (Wilderness Group) and a separate group of 54 comparable subjects who did not participate in either of the July or August Wilderness Programs (Comparison Group). The Comparison Group is similar in composition to the Wilderness Group but the two groups were not exactly matched. Tables 1 and 2, which follow, contain the age, sex, race and agency sponsorship distributions for the Wilderness Group and Comparison Group subjects. It is important to note that time pressures and other practical realities made it impossible to exactly match the two groups. The Comparison Group was created on a non-random basis during and shortly after the completion of the Wilderness Program. The limitations imposed by this procedure are discussed below.

Four basic instruments were utilized in this study, and several were repeatedly administered. These were: 1) the Background Information and Social History Questionnaire; 2) the Semantic Differential Ratings on Students (by staff and self); 3) Behavior Ratings on Students (by staff and self); and 4) the Outcome Questionnaire.

9 Background Information and Social History Questionnaire

The Background Information and Social History Questionnaire was completed by staff of the agency sponsoring the students or by those who knew the student quite well in collaboration with the subject. This instrument provides extensive data on various socio-demographic variables such as age, sex, race, marital status, education, religion, neighborhood, residence, sibling structure, estimates of I.Q., subject's current legal status as well as similar information on the subject's parents. This instrument is composed of sub-sections of a larger package entitled the Children's Assessment Package recently developed by Cytrynbaum, et al. (1975). The sections concerning the subject's legal status were taken from a similar questionnaire developed by Kelly and Baer (1968) in their evaluative study of several Outward Bound Programs. A sample copy of this questionnaire can be found in Appendix D.

Semantic Differential Ratings

In order to assess various dimensions of the subject's self-concept, a modified Semantic Differential rating scale was repeatedly administered over the course of the Wilderness Program. Two staff members who had responsibility for each group of students completed these ratings for each of the students in their group, a minimum of twice during the course of the Wilderness Program. In addition, each student completed the same rating scale with themselves as the target object three times during the course of the Program; at the beginning on the first day, half-way through and at the end of the Program.

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9/ **Behavior Rating Scale**
10

Behavior rating data on each of the students were similarly obtained using a modified version of a rating scale designed by Borgatta and Fanshel (1965). Similar // to the procedures employed in the semantic differential data, each of the staff members who had responsibility for a group of students were asked to rate each student in their group at least twice during the course of the Program; at the middle and at the end so that they would have time to get to know the students. Using the same forms, students were asked to rate themselves on each of these items three times during the course of the Program; on the first day, half-way through and at the end of the course. The Behavior Rating Questionnaire was composed of thirty-five items selected from an initial group of over seventy created and factor-analyzed by Borgatta and Fanshel. Using the results of the factor analysis these thirty-five behavior rating items were divided into nine major sub-scales. These are: Likeability, Defiance, Psychopathy, Over-cleanliness, Anxiety, Learning Difficulty, Lacking Affection, Responsibility, Infantilization. These scales are each based on anywhere from two to ten items.

10 The Outcome Questionnaire is a modified and shortened version of a similar instrument developed by Ciarlo et al. (1974) entitled the Denver Community Mental Health Questionnaire. This instrument was administered to all Wilderness Program students on the first day of the Program, and at the six month follow-up. In addition, this questionnaire was administered to all subjects in the comparison Group at the six month follow-up. The Outcome Questionnaire provides information on six major dimensions of social functioning. It is a particularly appropriate instrument for assessing social functioning because of the absence of a psychopathology focus and because of its generalizability across a variety of populations.

14 Procedurally, this study, therefore, involved the following steps: 1) Extensive social background and social history data were provided by relevant sponsoring agencies for all of the members of the Wilderness Group and the Comparison Group; 2) Staff and student behavior ratings were repeatedly gathered at designated intervals on the Wilderness students (but not on the Comparison Group); 3) Staff and students completed a modified version of the Semantic Differential Rating Scale with the student (or myself) as the target object repeatedly at similar intervals during the course; 4) the interjudge-reliability of staff ratings was assessed; 5) Pre-and post-measures of social functioning were gathered on the Wilderness students at the beginning of the course and at the six month follow-up, while similar data was collected on the Comparison Group only at the six month follow-up; 6) An analysis of changes in student and staff behavior ratings and self-concept assessment during the course of the Wilderness Program was carried out; 7) A comparison of Wilderness students on the indices of social functioning before the Wilderness Course (that is, pre-course) and six months after the course ended (post-course) was carried out; and 8) A comparison of the Wilderness Group and the Comparison Group on the same six month follow-up indices of social and personal functioning was carried out.

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Page 14/15 Before we proceed to present any results, a major limitation and unavoidable challenge to the validity of this study must be noted. Because we had less than // two weeks to plan and prepare for this study (we were contacted about evaluating the program three weeks before the first course began), we had no choice but to first concentrate on collecting data on the Wilderness students. This meant that the Comparison Group was put together in a post-hoc and non-random manner. Consequently this quasi-experimental field study is subject to many of the challenges to internal and external validity described by Campbell (1974), Wortman (1975) and others. Therefore, the preliminary and explanatory nature of this design must again be emphasized and extreme caution must be exercised when it comes to generalizations.

15/16 Both staff and students completed the Semantic Differential scales and the Behavior Rating Questionnaire repeatedly during the program. Several analyses of these data were carried out. With some exceptions the results were disappointing. The most interesting findings and trends were: 1) Estimates of agreement among staff (interjudge-reliability) in completing the Semantic Differential Scales and Behavior rating items on their students were high, acceptable and consistent with // previous research using these instruments justifying averaging data from more than one staff member. 2) Staff Semantic Differential ratings for all students produced few meaningful and significant changes over time. 3) Student Semantic Differential self-ratings similarly produced few clear, consistent and significant changes in self-concept over time, but certain trends as summarized in Table 4, below, are noteworthy; namely, a) all students rated themselves as increasingly more powerful, hard working, loyal, trusting and satisfied over time; b) relative to white students, the 5 black students described themselves as more personally powerful (that is, more powerful, hard working, aggressive and active over time), more distressed (more anxious, unsafe, distant and unskilled over time) and as less alienated (more friendly, loyal and satisfied over time); c) female students, compared to males, saw themselves as more calm, loyal, trusting, sensitive and skilled and less gentle and emotional over time (countering any stereotypic image); and d) the 10 institutionalized students compared to the 33 non-institutionalized students saw themselves as increasingly more friendly, close, masculine and aggressive as well as less responsible, skilled and active. 4) As is evident from Table 5, below, mean staff behavior ratings over time produced no changes or trends worthy of note. 5) However, repeated student self-ratings on the Behavior Rating Scale items resulted in several large and encouraging (from the point of view of the sponsors of the Wilderness Program) shifts over time. As can be seen in Table 6, below, over time all students tended to describe themselves as less defiant, psychopathic, anxious, lacking in affection and infantile but also as less likeable and responsible and more concerned with cleanliness. Further analyses of race, sex, and institutional versus non-institutional students resulted in additional trends of interest, but the small number of subjects involved argues against presenting these data.

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20 From the point of view of evaluating the short and/or long-term impact of the Wilderness experience on its participants, changes in Pre-course and six month Post-Course Outcome data in social and personal functioning and Post-Course comparisons between the Wilderness Group and Comparison Group are of major interest. To illustrate the utility of this kind of an instrument and the information it produces, we shall selectively report on three major areas of social functioning: 1) Arrests and legal difficulties; 2) Drug and alcohol abuse; and 3) Systems dependency (that is, magnitude of public resources utilized for maintenance of personal functioning including the reliance on public assistance, mental health, legal, Welfare, drug treatment services, etc.).

In these three areas of social functioning, the Wilderness Program seems to have had a general beneficial impact. The data generally suggest that graduates of the Wilderness Program are less likely to be in trouble with the law, are less involved with drugs and alcohol and less systems dependent relative to where they were before the Wilderness experience and when compared to a comparable group of teenagers and young adults who did not have a Wilderness experience.

22 With respect to recidivism differences, Table 8 indicates that in response to question 1, "Have you been arrested in the last six months", 45.7% of the Pre-Course Wilderness Group indicated Yes and 54.3% reported No, prior to the Wilderness Course. Responding to the same question six months after the course only 11.1% of the Post-course Wilderness students who responded said Yes and 88.9% said No. This represents a drop of about 35% in reported arrests. In contrast, 30.2% of the Comparison Group who completed the questionnaire responded Yes and 69.8% No despite the missing data. This magnitude of change is consistent with other studies of Outward Bound Programs.

22 With respect to arrests for specific violations such as drunkenness, illegal possession of drugs, car theft, loitering or vagrancy and breaking and entering, the results in Table 8 similarly favor the Wilderness Group.

26 In Table 9 in response to question 2 "If you drink alcoholic beverages, how often do you get drunk", 24.4% of the Pre-Course Wilderness Group indicated Never and 75.6% indicated that they got drunk anywhere from everyday to once or twice a month. On the Post-Course six month follow-up 32.2% of the Wilderness Group who responded indicated that they never got drunk and 67.8% said that they got drunk anywhere from everyday to once or twice a month, suggesting a minor reduction in alcohol abuse. Members of the Comparison Group who responded resembled the Pre-Course Wilderness Group in that 23.2% indicated they never got drunk and 76.8% said that they got drunk anywhere from everyday to once or twice a month.

26/29 Table 9 also reveals a striking finding in the area of drug abuse. In response to question 4 "If you use drugs other than alcohol, how often do you use them", 25.7% of the Pre-Course Wilderness students indicated Never and

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74.3% reported that they use drugs anywhere from everyday to once or twice a month. In the six month follow-up 43.8% of the Post-Course Wilderness Group who responded indicated that they never used drugs and 56.2% that they used // them anywhere from everyday to once or twice a month.

29 Systems Dependency

Finally in the area of systems dependency or the extent of reliance on public service agencies, the differences were also quite striking, as can be seen in Table 10. The Pre-Course Wilderness Group indicated that they received services from (or were seen by) a total of 73 public service agencies. At the six month follow-up the Post-Course Wilderness students who responded indicated contact with or services from 51 agencies. In contrast, the Comparison Group relied on the services of 145 public agencies. Taking into account the slightly larger number of subjects who responded in the Comparison Group, those differences in the use of public services are still quite substantial.

31 The purposes of this preliminary evaluative study were to assess the feasibility of certain instruments for evaluating the Connecticut Wilderness Program, to document changes, if any, in self-concept and behavior during the course of the three week Program and to assess in a preliminary manner the long-term (six months) impact of the experience on its participants. We have enjoyed varying degrees of success with respect to these tasks. In terms of the feasibility of instruments, there is some evidence to suggest that the Social background and History Questionnaire, the Behavior Rating Scale and the Outcome Questionnaire are suitable for this kind of evaluative research. The student behavior ratings data suggested a trend towards more socially acceptable behavior on the part of students during the course of the Wilderness experience, whereas staff behavior and semantic differential ratings indicated non-significant and/or little change. The most interesting findings were the changes identified by the Pre-Course and Post-Course Outcome questionnaire administrations. Compared to the Pre-Course administration and the Comparison Group, Wilderness students tended to do much better with respect to legal difficulties, substance abuse and systems dependency. Therefore, it is reasonable to conclude that these preliminary findings do suggest a general trend favoring the students who have had a Wilderness experience.

32/
33 On the basis of these preliminary findings, we propose that a long-term and more systematically controlled evaluative study involving a larger group of subjects be carried out. If such a study is contemplated, the following minimal requirements should be established: 1) Students should be assigned beforehand and on a random basis to various participating groups (e.g., Wilderness, Control, etc.); 2) These groups should be composed of less than 150 subjects each; 3) A two-to five year follow-up requirement should be built into the study; 4) The possibility of separating out the effects of the Wilderness Course experience per se from that of the follow-up program should be explored; that is, three well-controlled and matched groups

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(for age, sex, race, I.Q., history and severity of legal difficulties, social class, etc.) could be created including a Control Group which does not experience the Wilderness Program but does engage in alternatives, a Wilderness Group minus follow-up which experiences the Wilderness Program only without the follow-up and a Wilderness plus follow-up group which participates in the Wilderness experiences as well as the total follow-up program; 5) Systematic collection of background data, behavior rating information and outcome data on various dimensions of personal and social // functioning as developed in this study or by Smith et al. 1973 and others should be incorporated into the study; and 6) The study should be planned at least six months prior to the program so that a pool of potential candidates can be established sufficiently in advance for random assignment to groups.

33 If there is any interest among the sponsors of the Wilderness program in going beyond the work we have presented in this report, the following critical questions should be given high priority: 1) Can the selection process be made more sophisticated; namely, is it possible to identify certain students for whom the Wilderness experience would be maximally beneficial and others for whom it would be of limited value? 2) Can we identify how much of the beneficial impact of the program results from the actual Wilderness experience on the course per se and how much from the systematic and careful follow-up program that has been developed? 3) How important are race and sex interaction effects between members and staff in determining the effectiveness of the outcome? Given the current period of limited resources and funding, efforts to move to a fee for service contract basis and the necessity of prioritizing, these three questions are important from the point of view of the ultimate survival, effectiveness and efficiency of the program.

Robert Ward Davis
The Fear Experience in Rock Climbing and Its Influence Upon Future Self-Actualization. 1972. Unpublished dissertation, University of Southern California.

General Notes

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7 The problem of this study is to explore the influence or influences which fear, as experienced in the act of "rock climbing," has upon future self-actualization.

1. The lived experience of fear as it occurs in the movement activity called "rock climbing" can play a vital positive role in the process of self-awareness and in future self-actualization.

8 2. The lived experience of fear can be designed into an "educational" program with the intention, or desired result, being an increased self-awareness and self-actualization.

Recognizing that the responses may not be considered as scientifically reliable reports of the facts of what *actually* occurred, but rather represent individual reflective interpretation of what occurred during the experiences of rock climbing, the following assumptions are made.

1. In the process of self-awareness and self-actualization, the individual's interpretation of experiences is more important than the actual facts of the experiences.

2. The responses to the questionnaire are sufficiently accurate to permit certain general conclusions to be drawn.

3. It is possible for individuals, upon reflection, to distinguish between fear and other emotions, and between varying degrees of fear.

4. New modes of *conscious* self-actualization can be directly attributed to new dimensions of self-awareness.

9 1. This investigation is delimited to the humanistic or existential viewpoint of the human emotion of fear and the lived-experience of fear. No other emotion will be dealt with in any primary manner.

102 It is the purpose of this chapter to examine and analyze the results of a mail questionnaire which was designed to obtain personal reflections from graduates of the Outward Bound courses and the activities of the high rappel and vertical rock climb. The questionnaire is an attempt to examine the accuracy of the "theoretical" presentation of the possibilities within the said activities as have already been described in the earlier sections of this paper. The presence of fear, what individuals feared, intensities of fear experienced, self awareness, and any resultant self-actualization are all reflected upon.

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103/104 Questionnaires were mailed to 408 graduates of the Outward Bound schools. The mailing addresses were obtained from the master list at the national headquarters of Outward Bound, Incorporated. Addresses were those listed at the time of the individual's participation in // the course. The dates of participation ranged between the years 1965 and 1970. Only those individuals with a mailing address in the midwestern area of the United States were included in the mailing. Every third name on the master list was sent a questionnaire. Each of the five Outward Bound schools in the United States was represented. Replies were received from 150 graduates with only 116 of these being usable in the current study. The others were incomplete in some manner deemed important.

104 The questionnaire was deliberately patterned after the Klausner study on sport parachuting (15:257-281).

104/105 The participants were asked to consider the following situations:

1. While trying to fall asleep the night before.
2. On the way to the climbing site. //
3. Arriving at the site in preparation for the rappel or the climb.
4. Waiting to rope up.
5. Roped up, waiting to begin.
6. At the "climb" signal.
7. After the first couple of steps.
8. Midway through the climb.
9. At the most difficult part of the climb.
10. Seconds before completing the climb.
11. Upon just completing climb.
12. Just after unroping.
13. Before retiring that night.

The participants were asked to indicate the level of intensity of fear they experienced in each of the situations within the "larger" experience of the high rappel. A rating scale of 0 to 9 was used with 0 being equal to the least level of fear and 9 equalling the highest level of fear they had ever encountered during the activities of rock climbing. Then they were asked to repeat the process with their reflections for the vertical rock climb. Finally they were asked to go through the like process, first the rappel and then the rock climb, indicating their recollections of the intensity of enthusiasm during each situation.

107 Throughout the activities, mean fear and enthusiasm scores are negatively correlated (situations 6 through 11). They are positively correlated in the preparatory phases (situations 1 through 5) and after unroping (situations 12 and 13). Thus, fear and enthusiasm are negatively correlated during the period of actual execution of the act, rather than before or after the act.

The experience can be traced through its successive stages. From the night before, through arrival at the scene, to the point of being roped up and ready to go, the level of both fear and enthusiasm gradually increases.

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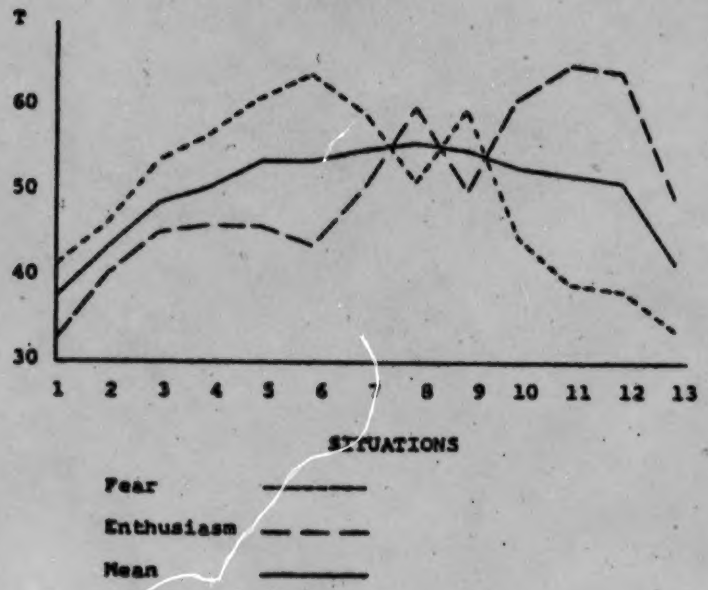
108 See Graphs 2 and 3 which follow.
109

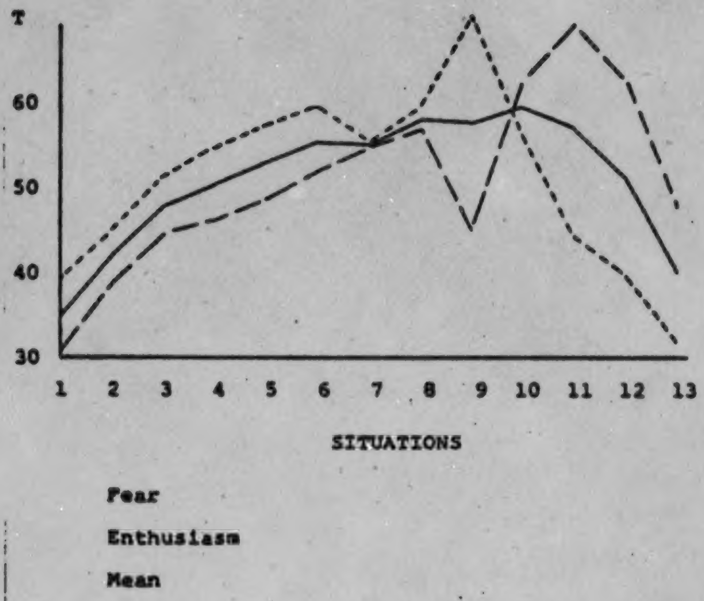
110 This indicates a general increase in the general tension or excitement of the participant. Upon the command of "climb," the general tension and the level of enthusiasm continue to increase but the level of fear begins to decrease. By the midpoint of the activity, enthusiasm has exceeded fear in the contribution to the general level of tension. Enthusiasm continues to rise and fear to decrease until the end of the activity. The only exception to this trend occurs at the most difficult point in the climb, at which time fear greatly increases and enthusiasm decreases until fear is again dominant. Upon completion of the actual act, both fear and enthusiasm gradually decrease; however, enthusiasm is now the dominant component to the state of general excitement. The level of excitement remains higher at the end than it was at the beginning. As Klausner pointed out, "the increased level of excitement and its shift of character from primarily fear to primarily enthusiasm are two emotional 'payoffs' of the experience" (15:680). Generally, the progress of the emotional ups and downs and transformations are very similar in the rappel and in the rock climb (Graphs 2 and 3).

128/ 129 The "transformation" of fear into enthusiasm must be considered as a prime value in the increased self-awareness and self-actualization resulting from rock climbing and similar // adventure type activities. Thus, though the presence of fear is vital, it is the "transformation" of fear into enthusiasm which brings about positive self growth.

Robert Ward Davis



GRAPH 2. Profiles of Fear and Enthusiasm (T-scores) and Their Mean for Rappel Situations



GRAPH 3. Profiles of Fear and Enthusiasm (T-scores) and Their Mean for Rock Climb Situations

Gerald E. Elledge,
"East High School Senior Seminar: 1973 Evaluation." Denver
Public Schools, Denver, Colorado.

General Notes

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3 The particular time blocks of study are called modules and all incorporate the technique of understandable stress with the necessity of supportive, cooperative efforts. The modules vary from the initial Outward Bound type of wilderness experience, required for all students, to the quest for academic knowledge through experience and traditional book study.

Selection of students for Senior Seminar is accomplished by a controlled lottery designed to reflect the ethnic makeup of East High School enrollment and to include equal numbers of male and female participants. The lottery is necessary because approximately three hundred to three hundred fifty students request the program each year and the program is allowed to take only approximately one hundred ten students. A further control in the lottery is designed to assure the inclusion of from thirty to thirty-five "dropout" students. These latter students are acquired mostly through the personal recruitment efforts of the Seminar staff and the East High School counseling staff.

4 The Seminar staff consists of one teacher-director and four teachers; this basic staff is supplemented by the recruitment of five student teachers or graduate teachers on special assignment from a college or university.

5 The study sample for this evaluation is referred to as the treatment group and included the 114 students who were enrolled in Senior Seminar. A control group of 114 students, selected at random from among those classified as twelfth grade students, constituted the comparison group.

Evaluative indicators selected included the following:

- an attitude assessment and appraisal of the Senior Seminar Program by
  - staff members assigned to East High School
  - parents of Seminar students as well as of students selected for the control or comparison group
  - students participating in the Senior Seminar and the twelfth grade students identified as the control group
- a follow-up survey of the post-high school status of Senior Seminar participants
- a cost assessment to ascertain the per pupil costs over and above the costs of the regular programs of instruction
- an achievement indicator based upon the results of the Stanford High School Achievement Battery which was administered as part of the citywide minimum testing program

Gerald E. Elledge

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- student retention as indicated by dropout rates prior to and since the implementation of the program
- selected data describing Senior Seminar participants
- narrative summary descriptions of the various Seminar learning modules

31 MEXICO OUTWARD BOUND MODULE

Experiences consisted of a long bus ride from Denver to Mexico, a live-in with a Mexican family, a marine biology session on the beach of the Sea of Cortez, backpacking, a peak climb, a visit to an isolated Seri Indian village called Desemboque, initiative tests, first aid lessons, solo, and a stop at the bordertown of Nogales, Mexico.

The Mexico module was a success in every respect.

William Elliot,
"The Respect of Others' Rights is Peace." Unpublished paper, 22
pages and references, n.d.

General Notes

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1 (Abstr.) It is my contention that Outward Bound can and should serve as a confidence building agent. I feel that if OB functions as such, it is making a very positive societal input.

1 To begin my evaluation of Outward Bound I would like to quote from the journal I maintained during the course that I was a student. It is the second entry in my journal.

3 ...I feel that although there are some instructors whose particular approach to instructing is not compatible with what I view as Outward Bound's philosophy, the worth of an OB course as derived simply from its unique structure far outweighs the amount lost to the student in the case of inconsistent instruction philosophies.

4 By the end of this paper I hope to have convinced the reader that a problem does exist and that it can be dealt with; but even more important that better methods of instructing will always exist and that Outward Bound should be capable of a more systematic approach to 1) experimentation, 2) evaluation, 3) synthesis, and 4) implementation of instructing techniques.

6 In my interpretation of Hahn the most important aspect of his approach was his method was very successful in developing an honest feeling of confidence. The boys coming from his programs knew more about what they were capable of; they had tested themselves and discovered the limits of their capabilities to be far greater than they had ever realized.

7 With the premise established that OB promotes increased individual awareness both as an individual and as a member of a group and as a consequence acts in a supportive or confidence building fashion, I shall now begin my analysis of OB in light of some group research findings.

One of the most important structural aspects of Outward Bound is that it organizes its courses to accommodate groups of eight to twelve members; in other words 'small groups'. Although this fact may seem too obvious to be important, the latent ramifications of this structural aspect are significant.

...what is significant is the size of groups that OB chooses to work with.

8 Not only does the prevalence of the small group (which contains approximately a dozen members plus a leader) point up its usefulness in task accomplishment in our society, but the ever increasing use of small groups as a therapeutic mechanism indicates that we are becoming more and more aware of the power of small groups in socializing and resocializing individuals.

William Elliot

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9 The fact that members of a small group feel and act and react according to the pressures and tensions that develop in group interaction was alluded to previously but not actually defined. The attitudes and consensus of a group are very real and meaningful powerful forces that act upon the individual group members.

11 Stress is an important structural component of Outward Bound.

We have therefore, as a result of OB's organizing its courses around gang, crews, watches, etc. which are small in size and meant to be basically of a self-sufficient nature, an inherent pressure toward group cohesiveness. The gang members in OB discover very quickly that it is in their own self-interest to act in a way that is not counter-productive to the group's functioning.

12/13 One of the unique qualities of most of the challenges is that the individuals are usually unaware of the relative safety and in many cases of the relative ease of the task. Their fear and anxiety is usually a function of having never faced the challenge and // consequently never having had the chance to gain confidence that comes through the repeated accomplishment. The instructor therefore is in a very powerful position in that he can reinforce or deprecate an individual or group's completion of a task.

16 In certain sections of Outward Bound there appears to be a new byword -- non-directive leadership is cool.

22 What I have primarily been trying to do is to put Outward Bound into perspective so that the role of the instructor may be more readily defined. I have presented some guides, but the main point is not so much that the instructor follow the guides as be aware of how OB functions and how he can complement its functioning.

B. A. Fletcher,
Students of Outward Bound Schools in Great Britain: A Follow-Up Study. 1970. University of Bristol, School of Education.

General Notes

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2 It was felt that the review of Outward Bound fell broadly into two spheres which, though capable of separation, are nevertheless linked. Firstly, there is the way in which Outward Bound training is applied, and secondly, there is the effect of that training on those who attend courses, with special reference to its relevance to education and industrial training.

3 With regard to the second aspect, Professor Basil Fletcher and the University of Bristol agreed to undertake this aspect of the review.

5/6 In the early meetings of the Committee the problems posed by a scheme for the follow-up of the careers of ex-Outward Bound School students were discussed. It was realized that two major difficulties would have to be overcome. These were:

(a) Outward Bound Courses are short and the influence of a Course on a student cannot be easily disentangled from the successive impacts of many influences coming from his work, his home, his friends and many others. The ideal method to use in a situation of this kind is to repeat all follow-up studies of a group of Outward Bound students with a carefully matched control group, exposed, if possible, to exactly the same or very similar environmental forces as the group under study. The control group method can be used with a degree of error that can be estimated in cases where the group studied is fairly homogeneous and lives, during the follow-up period, in an environment that is identical or very similar for all of its members. Thus the follow-up study of the influence of courses of training for primary school teachers, who proceed to work in primary schools, is one in which a control group can be used. But the basis on which students are recruited for Outward Bound courses is deliberately one which results in a student group with the widest difference of background possible. Students come, in fact, from schools, from the armed forces, the police, the fire service, heavy industry, // banking, Approved Schools and so on. In addition, the age bracket of students, 16-21, is a time of life when young people are rapidly changing their environment - from school to university or apprenticeship and from home to lodgings - and experiencing important changes of personality as well.

(b) If the first difficulty, set out above, is overcome, a second difficulty presents itself, which, like the first, is not easy to resolve. This concerns the decision as to the time-period over which a follow-up study is best carried out. If the influence of the course is strong, it will be persistent and only show itself over a period of years. Yet the further we get away from the point of the conclusion of a course, the less reliable will be the memory of ex-students and, if a postal method of follow-up is used, the smaller will be the percentage of replies received to letters or questionnaires. Yet this percentage cannot be allowed to fall too low or else a sample study, however randomly selected, may not be typical of the larger group which the sample is intended to represent.

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6 These and other difficulties were discussed by the Advisory Committee and it was agreed:

(c) That some of the questions raised in (a) and (b) above could only be answered after one or two pilot follow-up studies had been made with small groups of students - and

(d) that for reasons of limited time and financial resources the control group method of study must be ruled out as impracticable; and for this reason the pilot studies made should also be used so as to define a limited number of areas of study and then statistics relating to these areas should be collected by a variety of different methods, so that those close agreements could be seen which might confer reliability on figures representing the average of several results obtained in different ways.

10 Mr. Richard Tosswill of the Distington Engineering Co. Ltd., Workington, Cumberland was in 1964 a full-time instructor at the Eskdale Mountain School, Cumberland, in which capacity he had particular responsibility in consecutive courses for some ninety students. In 1966 he circulated to all of these a questionnaire with a personal note to explain that their answers might influence the shape of courses in the future.

Mr. Tosswill received replies from 60 students, or two-thirds, which is quite a good proportion in the light of the fact that many of these young men had changed address or even left the country.

The questionnaire asked for written replies of unlimited length and whilst some replied very briefly others answered very fully. The replies were, therefore, difficult to analyse and summarise and the ambiguity in some questions added to this difficulty.

The chief value of this follow-up study is the help it gives to the formulator of another similar enquiry.

14 The results of this questionnaire, accepting its limitations, give a strong degree of support to the efficacy of the Outward Bound courses.

The aim of the Schools is only incidentally to give a training in outdoor skills, but it is not surprising that students rate this aspect of the work highly since it is the obvious one, whilst character development is a much more subtle one. Perhaps the most surprising result is that 88% of the ex-students found nothing to dislike in the courses.

The degree to which work done is followed up after leaving a single short course of a month is also surprising -- 47% who follow up activities begun and 32% who join new organizations.

As far as character development is concerned both students and observers agree that self-confidence is the quality most developed.

The statistics on religious observance are a commentary on our secular age, but the fact that 18% of the 90% non-observers of religion left with a greater respect for religion implies that the simple Christian services in the course have a value.

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14 The clearest appreciation of the courses may be deduced from the figure of 80% of students who would like to attend a second or extension course.

15 The Strutt Follow-up Study

16 Miss Strutt summarised the results of her investigation as follows:-

(i) "At the first assessment of personality, the girls in both groups tended to be immature and unsure of themselves.

(ii) At the second assessment, the Outward Bound girls had become more stable and this change was significant at the one per cent level. They were also less aggressive, livelier, less sensitive, more liberal and less conventional and they thought that they were more confident and more dependable, both changes significant at the five per cent level; less tense, more critical, more independent and more sophisticated. The sponsors also considered them to be less reserved and less sensitive, both changes significant at the five per cent level.

(iii) Compared with the Control group girls the Outward Bound girls had become relatively more stable, more dependable, more critical, livelier, more independent, less sensitive, less conventional, they have fewer superego beliefs and from the Self Ratings considered themselves to be more liberal and much more confident than the Control Group girls.

(iv) More Outward Bound girls were still working for the same employer after eighteen months and more had achieved promotion than their Control Group partners."

18 Follow-up Study of Students at the Moray School

19 The Research Fellow interviewed all the members of the Extension Course and talked about the nature of the Standard Course to them. As a result of this work it was possible to work out a modification of the Toswill type of questionnaire and then to obtain the views of this selected group of forty students by interview.

19/
20 (iv) When students were asked to describe the influence of a standard Course in terms of character development their replies made it plain that there were // four major forms of influence. The one most frequently mentioned was a considerable increase in self-confidence, indeed 80% spoke of this as the most important influence. A slightly smaller percentage (70%) spoke of their increased ability to mix with others to engage more happily in team work, or to understand better the point of view of individuals with a different outlook from their own. Two other qualities of character were also frequently mentioned and these were an increased ability to initiate action or to embark on new lines of thought or experience and an acceleration of the growing up process of adolescence during the Course especially as this was shown in terms of the ability to accept responsibility.

20 (v) When the nature of the Standard Course was discussed in detail it slowly became clear that students' assessments of its value could be set out under the ten categories given below:-

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20 a) The development of physical fitness and feeling of physical euphoria.
b) the learning of a new outdoor skill, such as climbing, or the improvement of a skill already partly learnt.
c) the overcoming of challenges or hazards and the facing and mastery of difficulties and problems.
d) the benefit from the discipline of the voluntarily accepted Training Conditions of no smoking or drinking.
e) The ability to work as a member of a team.
f) the ability to mix happily with all sorts of companions.
g) the increased sense of the needs of individuals, especially as realised through rescue activities and community service.
h) the individual help and supervision given by instructors.
i) the enjoyment of the countryside and appreciation of its beauty.
21 j) the mental development following from work done in discussions, projects and other intellectual or cultural pursuits.

22 Follow-up Study of Students at the Rhowniar School

Fifty-seven students attended the course in the broad age range of from 16 to 20 years. The number of men and women was very nearly equal. Six groups of mixed sex were organized and since nearly all activities were by groups, there was no segregation of the sexes for different activities except where this was necessary for reasons outside the control of the Warden (e.g. use of an outside swimming pool).

At the end of the course the Research Fellow was able to interview the students and as an analysis of the Tosswill Follow-up questionnaire had just been made, he used this as a basis for the study of students' reactions to the course in comparison with the reactions of students on a single-sex course.

25 Follow-up of the Students at the Devon School

The main aim of this pilot study was to test the form of the questionnaire so that it could be modified for use later with a much larger number of students. It was also desired to gain experience in the analysis of the answers to both questionnaires.

A ten per cent sample of the 1968 group of students was taken as being sufficiently large for the results to be regarded as representative of the total.

In order that a pilot study might be made of the influence of the course on different types of individual, the sampling was not a random one for two groups of students, i.e., for
(a) students selected by the Warden as being typical of the best students of the year
(b) students selected by the Warden as being typical of the worst students of the year or even complete failures.

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26 There were ten students in each group so that the total sample was of 80 students representative of a group of approximately 800.

30/31 A comparison of the views of Sponsors and Students

(1) Sponsors are much more optimistic about the value of their briefing of students than are the students themselves.
(2) Sponsors and students are in close agreement on the general success of the Course.
(3) Sponsors detect most easily the growth in general maturity during a Course whilst the students are most aware of their increase in self-confidence.
(4) Only 23% of sponsors would be prepared to find the fees for an Extension Course but 85% of students would like to attend one.
(5) There is a close agreement between Sponsors and Students in the percentage who find a course helpful in relation to promotion.
(6) Students are more optimistic than Sponsors about the degree of persistence of influence of the Course but both agree on a very high level of persistence.
(7) Students are more strongly opposed than Sponsors to the shortening of the Standard Course but a majority of both are opposed to it. //
(8) Sponsors give a larger measure of support to the course of the City Challenge type than do students, but both support it.

33 The studies carried out with students from the Eskdale, Devon and Rhowniar Schools made it possible to design two questionnaires, one for students and one for their sponsors, that could be used and simply analysed for a much larger group of students.

Since questionnaire enquiries, especially when these are checked by interviews, involve the clerical staff of Schools in considerable extra work, it was decided to confine the larger random sample study to the three schools of Ullswater, Aberdovey and Moray, which had not been used in earlier studies. A population was taken for survey of approximately 3,000 students and their sponsors. On the basis of the pilot studies and in order to get the highest proportion of replies, it was decided to take a ten per cent sample from courses followed in the middle months of 1968, so that the views expressed by these students would represent judgements made approximately a year after they had completed their Outward Bound Courses.

Replies were received from 87% of sponsors and 78% of students. These very high figures for responses to a questionnaire study must be due to the fact that in most cases letters went out over the signature of Wardens and often with a personal addition made to the standard form of letter. Approximately 10% of letters to students were returned because of change of address but there was not sufficient time available to follow-up these students. Another 10% of questionnaires were returned with a lengthy amplifying statement of views.

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40 Personality tests of a group of students at Devon School

A repetition of the research of B.E. Strutt (Department of Physical Education of the University of Manchester) with girls at Rhowniar School was carried out with a group of boys at the Devon School in April 1969.

The sample was slightly smaller (75) than the sample (96) used by B.E. Strutt and, as in Miss Strutt's experiment, two assessments of personality were made at an interval apart but in the case of the men students only before and after taking the Outward Bound Course.

The Questionnaires used were also the Cattell Personality Factor Tests (1957) supplemented as in the Strutt survey by a self-rating questionnaire answered by the students.

Comparative Results, for girls and boys, of the Cattell Test

(i) As with the girls, at the first assessment, the boys tended to be immature and unsure of themselves. At the average age of the group (17.7 years) this is not surprising.

(ii) Three personality factors only were chosen for study and analysis although the boys took the test for all 16 factors in the Cattell questionnaire, i.e., Cattell's C factor i.e., Maturity and Stability
E " i.e., Self-confidence
H " i.e., Adventure and Liveliness

(iii) These three personality factors were chosen for study because they are the most closely related of Cattell's chosen sixteen to the personality change which questionnaire studies have revealed for students at Outward Bound Schools

41 (iv) Test results for character change

Table XXXVIII
Percentages who had made a gain of 5% or more

In Maturity	13
In Self-confidence	17
In Adventurousness	25
No Gain	45

These results were similar to those for girls in the Strutt survey but even more positive.

42 Persistence of influence study at the Moray School

The Warden of the Moray School offered, in addition to participating in the general questionnaire study of students who attended a typical course

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in 1968, to carry out a more comprehensive study using the same questionnaire. The period used for study was that of 1964-68 and a random sample of 280 boys was taken from the 2,800 boys who had attended courses over the period. The results were analysed by the same methods as those used in the other questionnaire studies and are set out as shown below in order to see if any trends of change could be detected over the five year period. For purpose of comparison the percentage figures for the questionnaire study with three other schools are given in the final column.

43 This inquiry must therefore be regarded as only a pilot research, giving no significant results itself, but indicating the need for a much more sophisticated inquiry.

50 Educational ideas and practices that grow and expand, whilst keeping firm a central core of fundamental beliefs, are always found to rely upon the existence of a carefully chosen staff, kept vigorous by in-service training. Criticisms of the educational ideas on which Outward Bound practices rest, have sometimes extended to the staff of Outward Bound Schools, and for this reason the Research Fellow made a brief study of the training and experience of the approximately seventy staff members of the six schools and a percentage analysis of this is given below:-

60 The Main Research Findings

By way of conclusion it may be useful to select a limited number of results of the field work described in this Report, which a convergency of figures supports.

1. Sponsors' Objectives in sending students

The main objective in the minds of sponsors in sending students to Outward Bound Courses is the improvement of the individual as an individual, in both character and general maturity.

80% of sponsors give these two aims as their highest priority.

Subsidiary aims are:-

(a) the ability to work with people of all types and

(b) the development of qualities of leadership or qualities that will enable students to be given greater responsibilities in their work.

46% of sponsors give (a) as their main aim and

30% of sponsors give (b) as their main aim.

This finding indicates the need for a more detailed study of the system of 'sponsorship' as a way of recruiting students.

2. Estimates of the success of courses by sponsors and students

50% of sponsors considered that the courses were highly successful.

48.5% considered that the courses were successful.

1.5% considered that the courses were a failure.

These figures are less enthusiastic than the estimates of students, using

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as a criterion their eagerness to accept an invitation to a second or refresher course. The student figures are

87% of students considered that the courses were highly successful.
11.6% of students considered that the courses were successful.
1.4% of students considered that the courses were a failure.

A further case-study of the small group of failures in courses might reveal information helpful to Wardens of Schools and to the Outward Bound Trust.

61 3. Influence of courses on character development

Sponsors and students alike agree that the courses produce character development of a kind that can be mainly analysed under the headings of (i) increased self-confidence (ii) greater maturity and (iii) greater awareness of the needs of others and greater ability to mix well.

(i) 86% of students believe they had increased in self-confidence during the course and 70% of sponsors reported their observation of this change.

(ii) 78% of students believed they had increased in general maturity and 73% of sponsors reported their observation of this change.

(iii) 64% of students believed they had become more aware of the needs of others or improved their ability to mix well, whilst 43% of sponsors reported their observation of this change.

The character development in the case of students sponsored by the Home Office was as marked as with the normal student. A particular and detailed study of the value of the courses to juvenile delinquents might be very illuminating.

4. Promotion at work

As a more obvious test of the value of a Course, sponsors reported that 19% of students had received promotion as a result of attending courses whilst the figure reported by students for promotion as a result of attending courses was 22%. The slightly more optimistic students' figure in this case may be due to a difference between sponsors and students in estimating the influence of the course in securing promotion. Sponsors may well believe that in some cases promotion has been due to their own training courses rather than to an Outward Bound Course. The true figure is probably about 20% of students who are helped to secure promotion at work as a result of attending an Outward Bound Course. This figure must be taken side by side with the figure of 58% of students who accepted an invitation to attend a course eagerly and hence are a self-selected, keen group, for whom promotion might be expected.

62 a further study of the relationship of Outward Bound courses to normal industrial training might be undertaken by a single industrial firm over a three-year period.

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62 5. The persistence of influence of courses

One of the surprising results of the inquiry is the firm belief of sponsors and students alike that the influence of a single Outward Bound course is very persistent. 55% of sponsors believe that the influence is for life, 38% that it lasts for several years and only 7% that the influence is short-lived. The percentages for students are even higher and here again the students are more sanguine than their sponsors.

The students estimates of persistence of influence does not vary much between the best and the worst students although the worst students are much more critical of their courses than the best. In this high estimate of persistence of influence there is no significant difference between the figures for students from different backgrounds or of different ages and histories.

In this study of persistence of influence the study made at the Moray School was extended over five years of courses and so makes the estimates much less a matter of guesswork and much more a matter of experience. If we compare the views of students who have just finished a course, and so are guessing what its influence may be, with those of students who look back over a period of five years we have:-

63 Table LVI

Course influence as estimated by students in a five year interval

Percentage estimating duration of influence

Influence	For students in 1968/9 courses	For students in 1964/5 courses
For life	72	64
Several years	23	32
Several months	5	4

6. Attendance at Second or Extension courses

A useful check on other figures in the inquiry is the answer to the question about willingness to attend a second or Extension Course. The figure of 87% for students who would accept an invitation is very high but consistent with other figures. The figure of 39% for the proportion of sponsors who would finance students for an Extension Course is also high. This evidence clearly supports the need for the provision of more courses of the Extension type for past students and some of these might well be of the City Challenge variety, at any rate for an experimental period.

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63 7. Estimates of the Quality of Courses

Of the various aspects of an Outward Bound Course that were investigated the aspect that received the highest rating in all forms of inquiry was that of the quality of the teaching provided. This must be a most encouraging result for Wardens and Staffs of Schools. At the other end of the scale the evidence all points to the need to reconsider and re-integrate the intellectual and cultural aspects of courses with the work and aims of the total course.

63/64 8. Estimates of Value of different aspects of course to the Individual

Students clearly appreciated the difference between the quality of some aspects of the course and the value to them personally of a single aspect. The interesting fact that emerged from the inquiry into various aspects of a course was that seven of the ten aspects selected always received similarly high ratings by all inquiries at all schools. There is clearly room for differences // of opinion on religion and on smoking and drinking but all students of all six of the Schools agreed very closely in appreciation of the following seven advantages of a Course (i) Improvement in physical fitness (ii) The overcoming of hazards and difficulties (iii) Learning outdoor skills (iv) Team activities (v) Mixing with others and learning tolerance (vi) Rescue work and Community service activities (vii) Appreciation of the beauty of the countryside.

64 9. Follow-up of activities begun on a Course, after leaving

Between 60% and 70% of students reported that after leaving an Outward Bound Course they had continued to practice one or more of the outdoor skills learnt, particularly in walking and canoeing, and the same high proportion spoke of the enrichment of leisure time activities that had resulted.

The percentage of approximately 30% who subsequently reported that they had found their way into voluntary or statutory Youth work will be regarded as a very encouraging sign by the devoted workers in this field, who often gravely lack part-time leaders.

The percentage of students who subsequently found their way into rescue work or community service work varied from 14% to 42% in different inquiries and on the average this figure is lower than for the entry into Youth Service work. This is perhaps not surprising since Community service work that is sustained in character calls for considerable maturity of outlook.

This follow-up study was lacking in detail and indicates the need for a further, more detailed study.

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64 10. A shortened Standard Course and other Experimental Courses

Approximately 80% of past students are firmly against any shortening of the period of a Standard Course and in this they agree with the views of the Wardens. Experiments in this direction, therefore, if undertaken, should be, at first, few and limited in scope.

65 There is also a good deal of caution, although in this case doubtless combined with conservatism, in the views alike of students and sponsors about anything more than a modest expansion of mixed courses for men and women. Students are more favourable to the idea than sponsors, perhaps because they are younger, but a majority of both are opposed to the idea.

Although courses of the City Challenge type are in many ways a radical departure from Outward Bound tradition they are supported in principle by about 40% of students and 50% of sponsors.

Sponsors and students alike are strongly attracted by the idea of courses in Europe of the 'Luxembourg' type. Unfortunately these are expensive to run, but Ullswater School, which ran the first course of this kind, found in January, 1969, that 42 out of 65 sponsors approached were willing to find the fees for students.

The new courses for Executives or Sponsors who are or who may be involved in the sending or follow-up of students sponsored to Standard Courses also received strong support from sponsors and clearly have great potential value so far as follow-up work is concerned. If a research on the lines briefly indicated under paragraph 4 above were undertaken by a group of training officers in a large firm, they should at some point, all attend an Executive Course.

66 The research recorded in this report was necessarily limited in scope and dealt only with the most obvious and general issues. It was, however, long enough to indicate several directions in which further research could be most profitably pursued.
These, briefly, are as follows:
1. The investigation in much greater detail of the way in which Outward Bound activities begun on a course are followed up, after leaving, particularly in the three directions.

67 2. A control group study of the influence of Outward Bound Courses on its students is in principle the most valid but it is difficult to organize.

3. Not enough research work has been done by medical authorities or professional workers in physical education on the physical capacity and endurance of young people in the 14-20 age range.

68 4. A study of all new and experimental courses at the Schools would be a useful piece of work over the next two years.

Herbert L. Foster, Diane L. DeBacy, William D. Loockerman, and Roy K. Bartoo, "An Analysis of an Outward Bound Experience and Its Relationship to Teacher Education." Unpublished paper, 129 pages.

General Notes

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1 INTRODUCTION AND GENERAL BACKGROUND

The pilot Outward Bound Program experienced by 24 students from the State University of New York at Buffalo is detailed and evaluated in this report prepared by the four State University of New York at Buffalo faculty members who accompanied the students for segments of the Outward Bound experience.

Dr. Herbert Foster, the initiator of this project on our campus, recognized the potential value of an Outward Bound-like experience as an adjunct to the inner-city teacher preparation program at State University of New York at Buffalo.

2 Implementation of the cooperative program was not free of problems. Many difficulties arose because the final notification date regarding approval for the project and the starting date for Dartmouth Outward Bound - 11 left us with approximately six weeks for preparation, three of which our students were not in session.

5 For the remainder of the Outward Bound experience gangs participated in rappelling, three-day individual solos, a final expedition, and returned to Harris Cabin for the final marathon run and the awarding of Outward Bound certificates. The sequence of the above experiences varied with each gang. Dr. Foster returned to Harris Cabin for the last three days and participated in the marathon run. On the last day of the experience all gangs hiked from Harris Cabin to the Outward Bound office in Hanover, turned in their gear, showered, ate-up a storm, and boarded a bus for Buffalo.

6 METHODOLOGY

The evaluation of the University of Buffalo-Dartmouth Outward Bound experience was carried out through three evaluative procedures.

Of the 24 University of Buffalo students who participated in the experience, 20 completed the Faculty and Student questionnaires, and 18 completed the Thurston Temperament Schedule.

Faculty Questionnaire - The 65-question faculty questionnaire was prepared by the faculty and completed by the student participants.

Student Questionnaire - The 24-question student questionnaire was prepared by a volunteer group of student participants and was completed by student participants.

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Thurston Temperament Schedule - The Thurston Temperament Schedule was administered to the student participants as a pre-and post-test. The pre-test was administered the evening before the Outward Bound experience started. The post-test was administered to some on the bus returning from the Outward Bound experience. The remainder were completed within a week of returning to the University from the Outward Bound experience.

50 The results of the data, found in Table IV, indicated the men became significantly more stable while the women increased significantly for the vigorous and stable traits.

52 As noted in the reporting of the data from the Thurston Temperament Schedule, "The only other trait that improved significantly was the one of stability. Stability is characterized by being calm in a crisis and difficult to disturb or distract."

53 One of the most positive outcomes of the experience were the faculty-student, student-student, and faculty-faculty relationships.

57 Drugs

There is some evidence from personal discussion with the student participants and the attached paper (see Appendix G) that many of the students, who had been on drugs, have either decreased substantially or have abstained from taking any of a number of drugs, since returning from Outward Bound, i.e., marijuana, hashish, mescaline, and L.S.D.

Whether the reduction or stoppage of drug intake will be long lasting, we don't know. However, there is evidence that, to date, there has not been any recidivism.

60 We must raise one important question, however. How much autonomy does the Outward Bound Center director have in determining the "skills" to be taught? Or, is there an Outward Bound philosophy related to teaching "skills?" In our opinion, this would be an important determinant in whether we should recommend an Outward Bound affiliation or some quasi Outward Bound model type experience.

G. William Freeman, Bernard Spilka, and Ralph Mason, "Delinquency and the Outward Bound Program: An Empirical Evaluation of a Radical Approach to Delinquency." Paper presented at the 1968 convention of the Rocky Mountain Psychological Association, Denver, Colorado, May 10, 1968. 14 pages plus references and tables.

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4 The antagonism of delinquents toward the traditional school has been well documented (Cloward and Ohlin, 1964; Conger, Miller and Walsmith, 1966). Many features of the Outward Bound situation require conformity in virtually the same way to goals espoused by the schools. It was thus hypothesized that the attitudes of delinquents toward education and the school would improve as a function of Outward Bound training.

If one set of characteristics of delinquents is firmly established it relates to the fact that by the middle class standards of our society this group is extremely aggressive and hostile.....Because of the necessarily highly structured form of training that is part of the Outward Bound curriculum, it was hypothesized that such consequences of aggression would, in general, come to be more negatively viewed.

5 Data were collected on 24 non-delinquent and 15 delinquent males who undertook Outward Bound school training for 26 days during the summer of 1967 at Marble, Colorado. These boys ranged in age from 16 to 17 years. Nondelinquent Ss of the same ages were primarily from the Denver area, while the delinquent sample was provided by the Denver Juvenile Court and the Division of Youth Services of the State of Colorado.

Five instruments were employed to assess the foregoing hypotheses. These concerned:

1) Alienation. Seven scales evaluating different aspects of this complex were factor-analytically developed by Spilka in previous research. All factors were cross validated.

6 2) Achievement Motivation. Four questionnaire measures of achievement motivation were also developed via factor-analytic methodology. Two theoretical scales were also included.

3) Attitude Toward School. In a manner similar to the above, four factor-pure scales of attitudes toward school were constructed.

4) The Expected Consequences of Aggression Test (ECAT). Developed by Adams, this device possesses 19 different subscales.

8 Of the 52 variables measured, three attained significance at the .10 level and two at the .05 level, possibly chance occurrences since one might have expected 5 to have reached the former level and two the latter on the basis of chance alone.....In any event, little evidence is present from this analysis to indicate truly meaningful differences between the delinquent returnees and non-returnees on the measures employed, hence analysis may proceed with little fear of contamination from loss of Ss.

James H. Gillette,
A Study of Attitude Changes as a Result of Outward Bound Mountain Ski School, C-60. 1971. Unpublished dissertation, University of Northern Colorado.

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1/ 2 A review of reports, brochures, studies and other literature pertaining to Outward Bound indicates that attitudinal changes were attributable to experiences gained // through the Outward Bound program. Limited empirical evidence of attitudinal changes is available and, therefore, broader research based on pre- and posttesting of participants attitudes is needed.

16 The population for this study was comprised of thirty-four college students selected to participate in the Outward Bound Mountain Ski School, C-60. For the most part, the thirty-four participants were college sophomores or juniors--twenty-two males and twelve females.

Half the group was selected from applications received from students attending colleges and universities that observed the winter interim schedule. These students were selected on a first come first serve basis.

The other half of the group, selected by instructors at the University of Colorado at Boulder, was adept in mountaineering skills and possessed academic proficiency demonstrating the abilities needed to pursue individual studies during and following the Outward Bound Mountain Ski School, C-60 experience.

16/ 17 To arrive at participant's attitudinal changes concerning personal values, social and political issues, and physical stress involved in this study, it was // necessary first to construct each statement in a positive and explicit manner, and second to find the priorities given to these statements. The Q-Sort technique was used to determine participant's change in attitudes. The Q-Sort technique was selected because it keeps examinees from giving answers that they believe are socially acceptable.

18/ 19 In reviewing the aforementioned three studies of the Outward Bound Schools, 106 statements were noted that illustrated attitude change as expressed by the participants. Sixty statements were selected from these original // 106 by two Outward Bound instructors (see Appendix A). Both instructors, Richard Scheideman and Robert Godfrey, agreed that the sixty selected statements were commonly held by Outward Bound Staff members to be representative of attitudes they have observed change as a result of the Outward Bound programs.

25 Two questions were raised in this research:

1. Did the participants, as a group, experience attitudinal changes concerning personal values, social and political issues, and physical stress, as measured by comparing the means of the pretest and posttest Q-Sort variables using the t-test of means for related samples?

James H. Gillette

Page 25 2. Which attitudes expressing personal values, social and political issues, and physical stress, showed the greatest variation from pretest to posttests as measured by the D^2 statistic?

Robert John Godfrey,
Outward Bound: A Model for Educational Change and Development.
1972. Unpublished dissertation, University of Northern Colorado.

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iv-vi See Abstract which follows.

4 It is the opinion of this writer that problems of educational change and development must be approached from personal, inter-personal, and organizational levels simultaneously. The project reported in these following pages is rooted deeply in this assumption.

4/5 In September of 1970 this writer was invited by the Colorado Outward Bound School to direct a three-year project // aimed at educational change and development in School District No. Eleven in Colorado Springs. This report covers the initial phase of the project from September, 1970, to May, 1971.

12/13 To the extent that the report is being written by the project director there is an inbuilt bias throughout. This writer has long been convinced of the educational value of Outward Bound and its implications for public education. The main purpose of this // report is to give encouragement to other individuals who also might seek to effect change in education. Within these limitations, the remaining data are presented as clearly as possible.

17/18 The idea basic to each seminar was to take groups of educators away from their normal environment and into an environment which would be relatively foreign to them. There, they would be faced with a series of challenging // experiences demanding a high level of personal commitment, together with a necessity for teamwork and cooperation. The wilderness environments chosen for the seminars would also be stimulating and inspirational in their natural beauty.

During the project, groups rafted the white waters of the Green and Yampa Rivers, climbed mountains in Colorado, crossed the Sea of Cortez in small sailboats to the uninhabited Island of Tiburon in the Gulf of California, and descended to the bottom of the Grand Canyon. A more inspirational series of environments would be difficult to imagine.

31 The results indicated that those participants who completed the questionnaire thought this a valuable experience for them as educators. It provided an opportunity for them to have a more complete understanding of individuals with whom they work (the whole individual); the change of environment was instrumental in producing dividends from such a conference; the time of year, in most cases, was adequate; the length of the trip was about right but travel to and from was demanding; and the respondents would appreciate participating in another such project, and they would be willing to share the cost of transportation.

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ABSTRACT

Godfrey, Robert J. "Outward Bound: A Model for Educational Change and Development." Unpublished Doctor of Education dissertation, University of Northern Colorado, 1972.

The author of this dissertation was the director of a cooperative project between the Colorado Outward Bound School and School District No. Eleven in Colorado Springs between the dates of July, 1970, and May, 1971. The aim of the project was to introduce Outward Bound methodologies into the school district, and to train teachers to eventually design and operate Outward Bound type programs of their own. The specific aims of the school district in the project were:

1. To improve understanding between administrators and faculty in regard to aspirations and problems of district personnel.
2. To open lines of communication between individuals and departments in the district.
3. To stimulate self-analysis among school district personnel in terms of assessing responsibility in an educational endeavor, and in terms of reassessing their commitment to the endeavor.

During the eleven months of the project a total of 126 administrators, teachers, and pupils from School District Eleven

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were involved in a series of short-term Outward Bound seminars lasting between two and ten days. In these seminars they rafted the Green and Yampa Rivers of Northern Colorado, sailed small boats in the Sea of Cortez in Mexico, climbed in the Rocky Mountains, and hiked down to the bottom of the Grand Canyon. The Outward Bound wilderness experience was complemented by group discussions of current educational philosophy and practice in School District Eleven.

The author of the study presents the results of questionnaires completed by participants, both at the end of the particular seminar in which they participated, and also at the end of the year. These data are analyzed in terms of the aims of Outward Bound and School District Eleven. The author's major conclusions were:

1. Educators from Colorado Springs who participated in the Outward Bound project experienced significant personal growth and improved inter-personal relations.
2. The Outward Bound project was effective in stimulating organizational change in School District No. Eleven.
3. The Outward Bound project influenced teachers in their work with both colleagues and school pupils.
4. The environment in the which the Outward Bound programs took place had considerable effect on the process of personal growth and improved inter-personal relations experienced by participants.

5. The traditional aspects of the Outward Bound program, (rock climbing, rappelling, and mountain climbing) were accorded less value by educators from School District No. Eleven than such factors as climate for developing relationships with colleagues, small group structure, and communal living.
6. The initial positive response of participants immediately after their Outward Bound experience exhibited an enduring quality.

The author's main recommendations as a result of his experiences as director of the Outward Bound project were:

1. The involvement of Outward Bound in public education is most effective if key administrative staff in a school district are involved in the project at the earliest possible stage.
2. The main aim of Outward Bound in these types of projects should be to provide school districts with the necessary skills to design and run their own programs.
3. Outward Bound programs should be specially designed to meet the needs of school districts and it should not be assumed that existing program models will be suitable.

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41/42 Summary

The overall reactions of the individuals who participated in the project were positive. As a result of the interaction, points of value emphasized by the group were:

1. The opportunity to better know members of the District team.
2. Increased communications.
3. The opportunity to interact in an unstructured environment which created a setting for a better understanding of the interdisciplinary effort of the District team in its functions. //
4. A focus on the self as an individual.
5. The development of a better attitude towards the job role.
6. Having the time to exchange ideas.

42 Some suggestions made were:

1. To provide the opportunity for similar experiences for all groups of personnel in our school district with some feeling for teacher-student outings.
2. To provide all types of activities.
3. Projects involving this amount of time would be about right.
4. The need to get away from everyday environment to plan together.

55 Summary [Mexico]

The nineteen persons who returned the survey forms indicated positive feelings toward the experience. The feedback provided by the group emphasized the following values:

1. Getting to know others as individuals.
2. Communication involvement.
3. A relaxed atmosphere was instrumental in producing unstructured interaction.
4. The opportunity to perceive one's job role within the department and the school district.
5. Personal insight.

Some suggestions made for improvement for similar projects were:

1. Better logistical support.
2. More involvement among patrols.

65/66 Summary [Educational Seminar]

The reactions of students indicated a positive feeling about the trip. There appeared to be much value from the experience in gaining insight to their own strengths and weaknesses and obtaining a better understanding of others including the necessity of group cooperation. The group thought other junior high students would enjoy and benefit from a comparable experience.

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In analyzing their adventure, the students indicated the following things as liked best and least:

Things liked best:

1. Learning about themselves as individuals.
2. Learning about others in the group.
3. Physical activities.
4. Outdoor environment.

Things liked least:

1. Not enough time in canyon.
2. Lack of student consideration.
3. Lack of structured academic learning.
4. Physical activities. //

Another such trip would have more value for them if there was a longer period of time, an opportunity to go with other students, and more academic structuredness.

88 Examination of the final rank ordering of average values indicates that the activities which traditionally take pride of place in the literature of Outward Bound (rappelling, rock climbing, camping, and hiking) are not considered most valuable by educators from this school district in terms of their own particular objectives. They see such items as environment in which the program took place, climate for developing relationships with others in the district, small group structure, informal meetings, and communal living as being most important. This is an important difference between this specialized group and the typical group of individuals who attend an Outward Bound program.

123/131 See extract which follows.

In Chapter II of this report a brief outline of each of the Outward Bound seminars was presented, together with a compilation of data from a questionnaire completed by participants at the end of each seminar. In Chapter III, an analysis of data from a questionnaire sent to all participants at the end of the year was presented.

Conclusions

The following conclusions can be made from the data presented in this report:

A. The Outward Bound program presents some possible solutions to the problems inherent in large systems of public education under the categories presented earlier: (a) personal, (b) inter-personal, and (c) organizational.

(a) Personal: The educators who participated in the Outward Bound seminars experienced significant personal growth, as evidenced by their responses to the final questionnaire, in the areas of development of: independence, self-perception, self-knowledge, self-realization, new capabilities, self-expression, and altered environmental perception.

(b) Inter-personal: The educators who participated in the Outward Bound seminars experienced improved inter-personal relations in the areas of: cooperation (teamwork, togetherness, dependency), development of respect for others, knowledge of others, and communication.

(c) Organizational: The Outward Bound program had significant organizational effects in School District No. Eleven. Dr. C. Frazier, in his summary report at the end of the project, stated that the three main school district goals of improving understanding between administrators and faculty, of opening lines of communication between individuals and departments, and of stimulating self-analysis on the part of staff had all been achieved. Additionally, the proposal presented by the group of art teachers on their return from Mexico, in which they outlined specific organizational changes which they saw as being necessary, lends support to the conclusion that the Outward Bound program can provide solutions to certain organizational problems within a school district.

B. The teamwork involved in climbing mountains, negotiating rapids, and camping in small groups with colleagues, drew school district staff together into cohesive groups and facilitated a productive interchange of ideas.

C. The wide variety of responses of different individuals to the Outward Bound program indicates that typically a situation of "harmonious discord" resulted, rather than the molding of participants towards a common group identity. The inescapable nature of the group experience and the necessity of cooperation amongst members in the achievement of common goals facilitated "harmonious discord" by encouraging the working out of relationship problems. The working out of these problems led to more open communications.

D. The Outward Bound seminars influenced teachers in School District Eleven in their work with both colleagues and pupils. In the great majority of instances this influence was positive in nature and teachers reported beneficial effects. In a small minority of cases the influence was negative and teachers reported adverse effects.

E. The impact of the Outward Bound experience on any particular individual or group was not fully predictable. Many outcomes were predictable, in terms of the development of personal growth and improved inter-personal relations as indicated in earlier sections of this report. But there were outcomes for certain individuals and certain groups that were unexpected. The proposal presented by the group of art teachers is one example of an unexpected outcome of the Outward Bound program.

F. The environment in which the Outward Bound program took place had considerable effect on the process of personal

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growth and improved inter-personal relations experienced by participants; both in terms of providing a setting different from the one with which participants were familiar and also in terms of the beneficial effects of the natural beauty of the wilderness.

G. The more obvious and well-publicized aspects of the Outward Bound program (rock climbing, rappelling, mountain climbing, etc.) were accorded less value by educators from this school district than such factors as the climate for developing relationships with professional colleagues, small group structure, environment in which the program took place, and communal living. It should be recognized, however, that the traditional Outward Bound activities were very much intertwined with these factors and that it would be false to conclude that they did not play a considerable part in the production of the overall positive response of participants to the program.

H. The initial positive response of participants to the Outward Bound program exhibited an enduring quality. The great majority of participants reported that their initial positive response to the program had either been maintained, or had increased, at periods varying between one month and nine months after their experience.

I. The ongoing involvement of personnel from this school district in a series of short-term Outward Bound seminars produced a cumulative reinforcing effect, which partly compensated for the short duration of some of the programs. After their experience, participants went back to their schools and into the company of colleagues who had a short time previously gone through a similar experience. The exchange of similar experiences, comparing of notes, and discussion of the value of the program, helped to reinforce the effects of any one particular seminar.

J. The development of the Outward Bound project in Colorado Springs presented the following problems:

(a) Some school district personnel who were not chosen to participate in the Outward Bound seminars exhibited jealousy and resentment, which to some small extent may have detracted from the overall beneficial effects of the project.

(b) At times the central administration in the school district experienced difficulty in providing adequate justification to the School Board for the expenditure of staff time and district resources on these kinds of programs.

(c) In like manner, it was sometimes difficult to explain to certain community members the value of these developmental programs and the use of public funds for their support.

Recommendations

There are many recommendations of use to individuals interested in the development of projects similar to this one in the body of this report and in the above conclusions. The following recommendations therefore are not presented as an exhaustive list but represent this author's viewpoint on the main lessons learned from his experiences in this project:

A. The involvement of Outward Bound in public education will be most effective if initial efforts are directed towards involving key administrative staff from a school district at the earliest possible stage. The early involvement of the Deputy Superintendent and the Director of Secondary Education was a key factor in the success of this project.

B. The most effective means of involving key administrative staff at an early stage in a project is to enable them to experience a successful and rewarding short-term Outward Bound seminar themselves. To this end, the river rafting experience appears most suitable. It combines the challenge and adventure of Outward Bound with a spectacular environment, and is not so physically demanding as to eliminate the participation of senior administrative staff who may not be able to cope with the more strenuous demands of a mountain experience.

C. Steps should be taken in the development of these kinds of projects to work as closely as possible with school district staff in such matters as design of programs, selection of participants, and identification of the particular goals of the school district.

D. Whenever possible the school district should carry out those aspects of the project which lie within its capabilities. Such matters as scheduling, logistics, provision of food and transport, etc., are suitable.

E. The involvement of Outward Bound within a school district should be seen from the very start of a project as being sequential in nature, with the eventual aim of providing the school district with the necessary skills to plan, develop, and carry out its own Outward Bound type programs. A desirable sequence over a three-year period would be:

(a) 1st year: Involvement of school district personnel in Outward Bound experiences with the goal of exposing as many staff as possible to the experience.

(b) 2nd year: Training of selected school district staff in the skills they will require to plan, develop, and carry out Outward Bound type programs in their district.

(c) 3rd year: Consultation and remedial work with school district staff as they plan, develop, and carry out their own programs.

It should be clear from the start that Outward Bound sees itself in a phasing-out role, and that its input will decrease each year, with the expectation that a point will be reached where the school district will eventually be equipped to run its own programs with a minimum of consulting assistance.

F. Outward Bound staff should be selected for these kinds of projects with special attention paid to their sensitivity to the particular needs of public school systems, in addition to their competency in the traditional Outward Bound activities.

G. Outward Bound programs should be specially designed to meet the particular needs of a school district. It is a mistake to assume that existing program models are appropriate and to involve school district staff in them without consideration of the unique situation of a particular district. Programatic emphasis should especially be placed on the development of productive interaction between school district staff members, rather than only on the provision of traditional Outward Bound experiences.

Gerald L. Golins,
"Perspectives on the Design and Management of 'Experience Seminars.'"
Colorado Outward Bound School. Mimeographed, 17 pages.

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1 Now discussing OUTWARD BOUND and experiencing OUTWARD BOUND are not incompatible. The only rule of thumb that is necessary to insist upon is that discussing OUTWARD BOUND will not take precedence over experiencing OUTWARD BOUND. Explanation and discussion are used to stop and think about the meaning of the experience. It is really no different than a standard course, except that the limited amount of time (which is the usual case) and the political factors in a "seminar", suggest that the instructor take a more active and directive role in reconstructing the meaning of the experience. This need not be highly structured and formal either.

7 Following the orientation, a debriefing session was held, part of which consisted of a 5 question evaluation completed by each program participant.

The purpose of this evaluation was to assess the orientation program itself using the information in the development of future sessions. A secondary goal was to use it as a stepping stone, stimulating trainees to refocus on their weeklong session and preparing them for the brainstorming session which followed.

1. LIST AT LEAST TWO THINGS YOU LIKED ABOUT THE ORIENTATION COURSE AND EXPLAIN WHY.

By far the most common response to this question was Rapelling, in which a cliff descent is made using a rope. Rapelling is a thrilling, high risk exercise which seemed to arouse the daring and adventuresome nature of those who participated.

2. LIST AT LEAST TWO THINGS YOU LIKED LEAST ABOUT THE TRAINING AND GIVE RECOMMENDATIONS.

The most common reaction in response to this question centered around food. Many felt that freeze dried food should have been used as opposed to whole foods which were bulky and heavy.

Irving S. Greentree, III,
Wilderness Survival Training: The Contribution of Small Group Survival Research to the Understanding of Its Potential for Effecting Psychological Change. 1975. Unpublished area paper, George Peabody College for Teachers.

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3/ 4 In this paper, I explore whether psychological benefits may in fact be derived from participation in survival training programs. I believe that a comparison of small group survival research to the // survival training literature helps discern the direction and magnitude of the stressful wilderness challenge programs' influence upon individual and group psychological dynamics. Therefore, this paper examines the results of studies concerning the psychological adaptation of small groups and their members to various environmental crises, later comparing such findings to those gained from evaluating the psychological outcomes of participation in wilderness survival training programs. The scope of such environmental crises will include such areas as polar survival, mountain expeditions, marine exploration, natural disasters, etc.

9/ 10 Wilkinson (1969) suggests several *task variables* which may influence environmental stressors' impact upon performance: 1) duration of the task; 2) familiarity with the stress and the work to be done under stress; 3) level of incentive; 4) type of work necessitated; // 5) aspect of performance which is most important; 6) the presence of stresses in the working environment.

10 Second, there is the matter of *group variables*.

29 Llano (1955) relates that the emotional make-up of aircrew members is frequently more important than physical strength in survival experiences.

42/ 43 In closing, the following conclusions obtained from extensive laboratory and field research concerning group cohesiveness and effectiveness are offered (Haven, 1961):

1. Individuals' job satisfaction, morale, etc., strongly influence group interaction and cohesiveness. Individual attitudes and satisfactions are therefore important influencers of group psychological health.
2. Highly cohesive small groups are potentially effective groups. Though a positive relationship between group cohesiveness and effectiveness has not been found, groups lacking this attribute tend to be less goal-directed and productive.
3. Goal-oriented cohesiveness emerges as a necessary, but not // sufficient condition for small group effectiveness.

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52 Perhaps one of the most important positive results of survival encounters is one's increased ability to more easily adjust to the recurrence of stress. Effective survival behavior is learnable. In general, the successful mastery of a mild stress seems to enable one to cope more successfully with a severe stress (Torrance, 1957a). Trained personnel who have the ability to cope with day-to-day emergencies will probably perform quickly and competently during disasters (Beach & Lucas, 1960). Torrance (1957a) reports appropriate prior training can be effective in curbing panic during survival.

54 That such testimonials arise from programs primarily geared to promoting physical rather than emotional adaptability might appear surprising. However, while survival programs focus directly on survival skill development, an equally important, though indirect goal of these programs is the development of participant self-esteem and interpersonal skills. Strong emphasis is placed on learning member interdependence (Barcus & Bergeson, 1972), with a remote wilderness environment forcing group members to depend upon each other for physical survival (Schulze, 1971). Additionally, the presence of severe stress plays the dual role of solidifying group members and pushing individuals to achieve beyond their supposed limit, thereby increasing their self-confidence (Schulze, 1971).

62/63 In summary, educational adaptations of wilderness survival training programs have been reportedly effective with high and low achievers, // suburban and ghetto youth, and delinquents. Additionally, school faculty and administrators appear to gain personally and professionally from survival program participation. And last, such educational programs, in fostering human relations, institutional unity, and policy evaluation, may have a system-wide impact.

As survival training programs are best known for their professed character development potential, it is not surprising that the bulk of program evaluation efforts have focused on such programs' impact upon individual psychological well-being.

72/73 Regarding assessment technique, it must be noted that many survival training program evaluations have failed to use a comparison and a control group. Also, the most frequently employed design has been a pre-test/treatment/post-test procedure. Few extensively validated personality measures have been employed in such designs (Barcus & Bergeson, 1972), and there are several sources of error associated with the // questionnaire approach in general (Fletcher, 1970).

75/76 The lack of a clear definition of survival training has been considered to be another weakness in survival training research (Barcus & Bergeson, 1972). Survival training focus and procedures vary from // program to program.

76 Also, not only must novelty or Hawthorne effects be controlled for, but many input variables surrounding such training must be accounted for if research results are to be reliably generalized.

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80 Presently, the amount of group sensitivity process experienced in an Outward Bound group is a function of the specific instructor's skills and inclinations to introduce it...

81 ...Outward Bound prefers to treat all students in the same way, that is, to treat them as if they were all normal.

Paul Harmon,
"The Measurement of Affective Education; A Report of Recent Work by Outward Bound Prepared for the Conference on Outdoor Pursuits in Higher Education." (February 1974).

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1 For slightly over a year Outward Bound has been engaged in an effort to specify its educational objectives and to measure the behavioral changes induced by an Outward Bound course. We expect this effort to become an ongoing part of Outward Bound. During this early stage special attention has been given to the identification and measurement of affective behavior change. This report will discuss our activities and results to date.

1/ ...we might say that (1) was concerned with // determining the value of a
2 program; (2) was concerned with determining the instructional objectives of a program, and that (3) was concerned with measuring the instructional effectiveness of a program.

2 Outward Bound has, after all, been in existence since World War II. It has run numerous courses and is satisfied that its courses are worthwhile. During all that time Outward Bound has not previously attempted to explicitly specify its instructional objectives or measure its results.

As the schools have become large and more diverse, however, some have felt a need to be able to tell new instructors about Outward Bound techniques and goals in a more precise and explicit fashion.

4 Preparing Instructional Objectives, published in 1962. In that book Mager defined the function of a good instructional objective as follows:

(1) It should describe what the learner will do to demonstrate that he has acquired a desired behavior.

(2) It should describe the conditions under which the learner must demonstrate the behavior, and

(3) It should state the standards of behavior expected of the learner. In other words, it should tell us how to discriminate between an acceptable and an unacceptable performance of the desired behavior.

5 At about the same time that Mager was popularizing instructional objectives, Bloom, Krathwohl and others came up with a three part division of all instructional objectives. They proposed that all objectives be classified as either cognitive, affective or psychomotor objectives.

Cognitive objectives are objectives concerned with intellectual knowledge, including facts, analytic skills, and problem-solving skills.

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Affective objectives are objectives concerned with attitudes and feelings and include attention, valueing and intrinsic ethnical motivation.

Psychomotor objectives are objectives concerned with physical performance including coordination and skilled body movement.

7 Our strategy has been to gather Outward Bound personnel together in workshops and ask them to identify their own goals. In structuring these workshops we have used two general approaches. First, we have started from the top and worked down. Thus, for example, we begin by agreeing that Outward Bound has three general classes of objectives: cognitive, affective, and psychomotor.

The second approach we have depended upon is successive approximation: we don't demand final results the first time.

8 In other words, Outward Bound is evolving its objectives in a series of empirically checked steps. After each round of course work where they try to apply objective checklists, Outward Bound staff members return to workshops much more sophisticated in the practical problems of affective measurements.

9 There are two big problems associated with the development of affective objectives and criterion items.

First we must decide what specific, observable behaviors may reasonably be taken as an outward sign of an inner attitude.

12 A second problem associated with developing criterion items is the terrifically practical problem of measuring the behavior in the field.

13 It's one thing to specify objectives and it's another thing to actually measure their attainment.

We've spent a considerable amount of time on this question in workshops and have yet to arrive at a completely satisfactory answer. At the moment we are relying mostly on checklists. The observer, be he the student, instructor, or senior instructor, uses the checklist to quickly run through a list of behaviors and determine whether or not the student is displaying that behavior.

15 It is worth noting, that Outward Bound instructors are very resistant to individual student evaluation, but are quite willing to gather individual data when they understand it will be averaged and used to evaluate the course.

16 There are many things we can do with the evaluation data, but only when everyone concerned trusts the data. By 1975 we hope to have developed a set of checklists which accurately measure affective behavior change on a standard Outward Bound course.

We will then be in a position to try to accurately evaluate particular course elements to determine their effect on the total course. For example, we might increase or decrease the current three day solo experience and see if that resulted in changes in different affective components.

OUTWARD BOUND AFFECTIVE OBJECTIVES HEIRARCHY

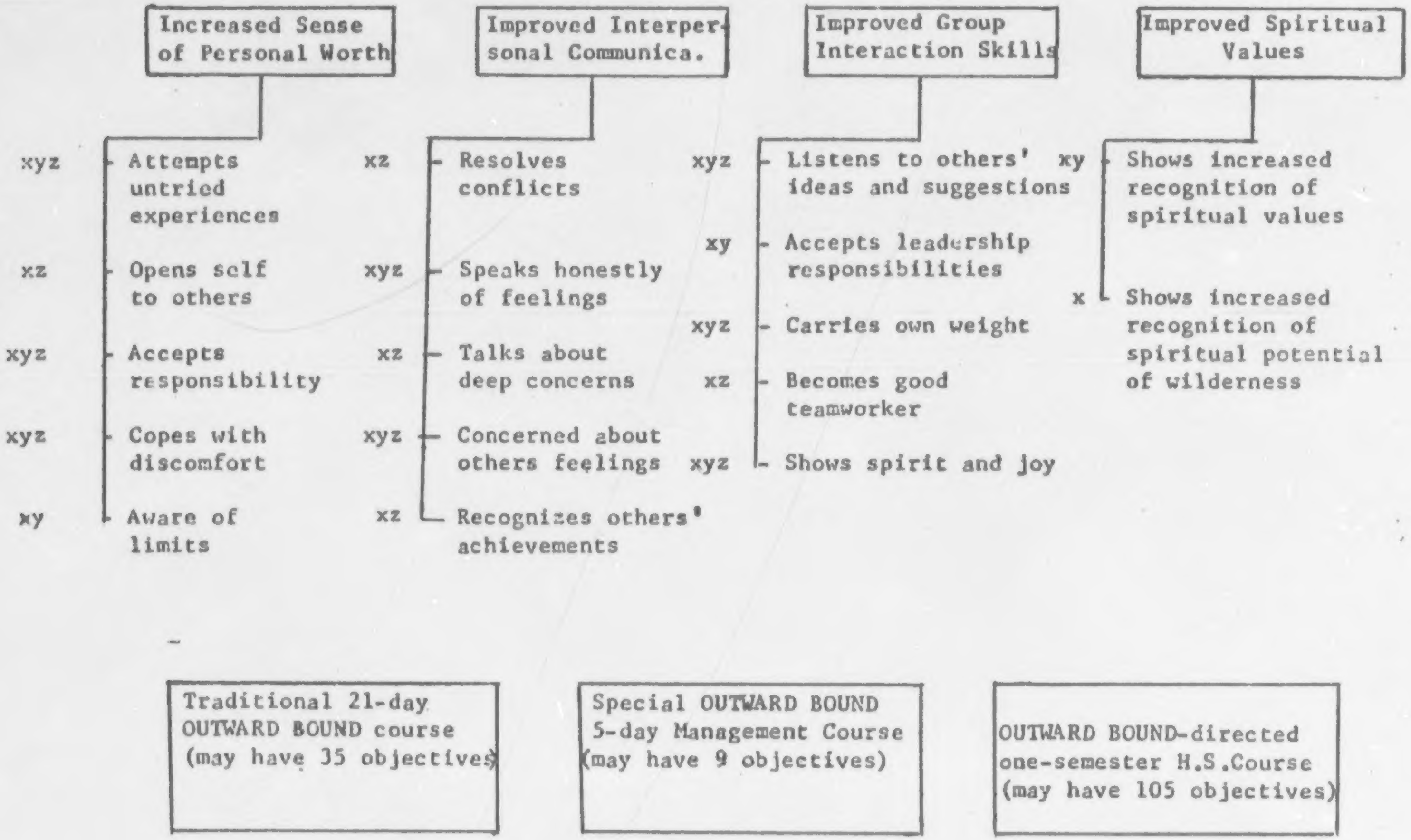
Increased Sense of Personal Worth
xyz Attempts untried experiences
xz Opens self to others
xyz Accepts responsibility
xyz Copes with discomfort
xy Aware of limits
Improved Interpersonal Communica.
xz Resolves conflicts
xyz Speaks honestly of feelings
xz Talks about deep concerns
xyz Concerned about others feelings
xz Recognizes others' achievements
Improved Group Interaction Skills
xyz Listens to others' ideas and suggestions
xy Accepts leadership responsibilities
xyz Carries own weight
xz Becomes good teamworker
xyz Shows spirit and joy
Improved Spiritual Values
xy Shows increased recognition of spiritual values
x Shows increased recognition of spiritual potential of wilderness
Traditional 21-day OUTWARD BOUND course (may have 35 objectives)
Special OUTWARD BOUND 5-day Management Course (may have 9 objectives)
OUTWARD BOUND-directed one-semester H.S.Course (may have 105 objectives)

Figure 2: Hypothetical Example of how the Heirarchy can Provide a Structure for Several Different Programs [from page 10 of paper].

Glen Hawkes, Joseph Schulze, John Delaney, Trudy Schulze, and John Woodbury, Evaluation of Outward Bound Teachers' Practica, Summer, 1969. (Reston, Va.: Outward Bound, Inc.).

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2 The Teachers' Course (also referred to as Practicum) consists primarily of a patrol of 10-12 educators and one skilled patrol leader living and working together in a wilderness setting. Physical survival skills are taught and then used on long hikes, rafting trips, and peak climbs which make up the major part of the 26 day course. A three day solo (alone without food or shelter) is a major component for all courses. A three day urban experience involving a stay in the slum area of Denver or with a migrant family was an experimental portion of two of the three courses. Throughout the Teachers' Practica, physical and emotional challenges are placed before the participant to expand his concept of what he can accomplish. Along with the physical challenges, the group engages in discussions about themselves, their group, the teaching or learning experience, and how Outward Bound's philosophy of experiential education can be incorporated into their classrooms.

Evidence from journals, tapes, interviews and questionnaires suggests that significant changes in the behavior of teachers resulted from the Outward Bound Teachers' Practica. Frequently, teachers became more sensitive to their students, more concerned with meeting the needs of students, and less concerned with the traditional ritual and codes of public schools.

3 Because we were not contacted to conduct the evaluation until after the course was completed, our survey is limited in its scientific and statistical research. We have to rely primarily on the participants' perceptions about themselves, about their experiences, and about their companions. A variety of sources were used to gain this information. Daily journals were kept by the teachers during the Outward Bound course. At the end of the course, papers were written and debriefing sessions led by the staff were held. Our own interviews and questionnaires supplied us with the teacher's reflections several months after the course was completed. In addition, we were able to observe some of the teachers interacting with their students both in and out of the classroom, as well as with colleagues. We also interviewed Outward Bound staff and did extensive reading from literature about Outward Bound.

As stated, our main source of information was the teachers. We contacted and personally interviewed a total of 34 participants -- 25 in the Colorado courses, and nine in the Dartmouth course.

4 Another major source of data was a questionnaire which we designed and forwarded to all participants. The questionnaire was four pages long and called for reflection upon and reaction to the Outward Bound course. The participants were asked to discuss the effects of the course on them personally as well as professionally. We received responses from 34 of the

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participants. In most cases, we did not receive questionnaires from participants that we had interviewed. Thus, the team made substantial contact with over 65 of the 108 participants. A copy of the questionnaire along with responses is enclosed in this report.

7 It may be noted that there is ambiguity on the part of the staff as to the nature of the content of the course. Some feel that a traditional boys' course is all that is necessary for teachers; others believe that special methods and techniques must be employed in order to get teachers to effectively analyze and possibly change their behavior. Our evaluation team would agree with the latter opinion.

9 How much of this feeling of sensitivity or concern for others was present in participants before experiencing Outward Bound is impossible to determine accurately, but we assert that the feelings and emotions of the participants were deep and profound ones.

10 Self-confidence

Confrontation with daily physical stress situations (rappelling, river rafting, rock climbing) extended and tested what the participants previously felt capable of doing. For this reason many teachers developed a greater sense of self-confidence.

Involvement

11 Professional level

12 Empathetic with students

Teachers are more empathetic with their students. They seem to understand more clearly the feelings of students, to see the educative process through the eyes of younger people.

13 Because of increased empathy for students, teachers are more interested in tailoring instruction to meet the needs and concerns of individual students.

14 Teachers developed a willingness to give students more independence and a greater sense of control over their learning, thus meeting a current demand of college and high school students who are reacting against being treated as second class citizens, and being required to obey rules which frequently they have had no hand in making.

One conclusion which was emphasized over and over by teachers was that they were now less concerned about traditional school regulations, e.g., dress code, hair cuts, etc.

15 An interesting point to note under this category is that while many teachers became less interested in the smaller matters of education they remained strict about students meeting their responsibilities and measuring up to challenges.

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16 One criticism we have of the Outward Bound course is that the teachers were not always shown how to adapt planned stress situations into their classroom. We will take this point up later; however, we do feel that a positive result of the Outward Bound course for some teachers was that it increased their view of what students can do.

17 Against this background of authoritarianism it is a pleasure to find that as a result of Outward Bound courses, teachers are more open and relaxed with students.

21 One problem with the course as it exists is that the teachers are uncertain of the goals of the program. Some believe the experience will be primarily a physical one and others a contemplative one. There is a difference of opinion on the amount and type of group sensitivity discussions in the course.

24 We also feel strongly that Outward Bound staff be capable of presenting and discussing innovations and techniques in education. Teachers need encouragement to see how Outward Bound techniques might be applied to their classrooms.

25 Academic component

The academic component was received with mixed reactions.

26 Flexibility in schedule

The staff should think about allowing more flexibility in the schedule.

26/27 Knowledge of Areas

Many participants expressed a desire for more knowledge of ecology, geology, history and folklore of the areas in which their // Outward Bound experience took place.

27 The "solo" is extremely valuable and most every participant is enthusiastic about it. Yet the staff should be careful not to "over-sell" its importance or effect. It should be allowed, not forced to happen.

The urban component which was part of the two Colorado courses, was an outstanding feature of the program and should be made a part of the Dartmouth course and all future Teachers' Practica.

28 The migrant experience did not appear to be as effective as the urban component. Some teachers were placed with families who did not think the participants should work and who in some cases did not need the help. Outward Bound staff should try to explain the purposes of this experience more clearly to the families as well as to the participants.

The three days of sailing should probably be eliminated as this feature is too dependent on weather conditions and can easily become boring.

29 The skills taught were very well received.

Richard A. Heaps and Clark T. Thorstenson,
"Self-Concept Changes Immediately and One Year After Survival Training."

General Notes

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1st We can infer from such studies that survival experiences will ordinarily yield immediate psychological and social gains, but data on long-term survival benefits appear unavailable.

2nd The original subjects were 25 students enrolled in an outdoor survival course at Brigham Young University. One year following the survival experience, the authors were able to locate 21 of the original subjects (7 males and 14 females).

The survival experience included an initial adjustment or shakedown hike, without food or blankets, lasting two or three days; a group expedition in which the initial group was divided into two subgroups and specified physical-geographical goals were accomplished by each group; rapelling; a survival week living off the land; student expeditions wherein no escort was provided and small groups of students relied upon themselves to achieve outlined goals; and a solo experience, living alone for three days.

The counseling form of the Tennessee Self-Concept Scale (Fitts, 1965) was administered to the subjects before, immediately after and one year after their survival expedition. Self-concept scores before versus immediately after, and before versus one year after the experience were contrasted by means of t-tests.

2nd/3rd The present data for the remaining 21 subjects (see Table 1) are con- // sistent with those obtained earlier, with the exception that the students' improved evaluation of their social selves did not reach significance. This current data indicated that the students' perceptions of their identity, self-satisfaction, behavior, physical self, moral-ethical self, personal self and value as a family member became more positive from the beginning to the end of the survival expedition.

Data in Table 2 indicate that the positive change in self and behavioral evaluations were maintained one year following participation in survival training. However, the subjects' evaluation of themselves as a family member dropped slightly, and their perception of their social selves improved.

3rd There are some subjective indications from student reports, however, that during the first several months following their return from the field some students experience a significant drop in the effectiveness of their psychological and social functioning. These months are usually followed by a gradual and apparently difficult return to improved functioning. Two implications seem important: 1) a post-survival experience is needed to facilitate maintenance of positive changes; and 2) changes during survival may serve as a model for further change or reestablishment of changes lost soon after the experience. Further research into this area would have definite implications for survival programs being used in therapeutic settings.

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The present authors suggest that, although results from the current and previous studies seem consistent and definitive, it would be wise to begin more sophisticated research into the effects of outdoor survival programs. Recommendations would include using larger sample sizes, separate analyses for males and females, additional longitudinal studies, control groups for longitudinal studies, examination of the influence of various components of survival programs, evaluations of the degree of self-concept and behavioral changes at periodic intervals following survival training, the use of post-survival experiences to enhance positive changes and examination of the therapeutic value of survival experiences for specific behavior and social problem groups.

Christopher Martin Hendy,
Outward Bound and Personality: 16 PF Profiles of Instructors and Ipsative Changes in Male and Female Students 16-19 Years of Age.
1975. Unpublished dissertation, University of Oregon.

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1 Introduction

This investigation (1) looked at the personalities of the Outward Bound staff in a comparative fashion, (2) measured student personality changes likely attributable to their course, (3) retested the students six months later to see if the "treatment had worn off," and (4) examined the profiles of drop-outs.

7 So, given that many, many people enjoy participating in outdoor recreational activities, the problems are (1) what kind of person is attracted to become an Outward Bound instructor, (2) from which occupations or their training grounds can one recruit potential instructors, and (3) what kind of person makes a good instructor? Such is the enthusiasm for the instructor's job that the second question might well be stated in reverse: in what kinds of work or training should an Outward Bound instructor find success during the off-season?

8/ Properly stated, these are the purposes of the study:
9 1. to construct, using the Sixteen Personality Factor Questionnaire, the personality profiles of male and female instructors at the Northwest Outward Bound school
2. to relate these profiles to those of selected occupations or groups
3. to predict the effectiveness of the Outward Bound instructors in those other occupations
4. to isolate profiles of instructors rated superior by their supervisors //
5. to construct a regression equation for predicting the success as an Outward Bound instructor of applicants for the job
6. to measure, with the 16 PF, ipsative personality changes in students at NOBS by means of pre and post tests
7. to reassess ipsative changes six months later
8. to learn which personality factor scores change, and the direction of change
9. to seek to identify personality factors or scores predisposing Outward Bound students to drop out
10. to construct regression equations for predicting from an initial 16 PF test personality profiles right after and six months after an Outward Bound course.

12/ Hypotheses
13 1. Outward Bound instructors of both sexes are unusual members of society.

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2. Outward Bound instructors rated superior by their supervisors exhibit profiles different from those instructors not so rated.

3. Personality changes occur in high school-aged // students attending Outward Bound.

4. These personality changes persist over a six months period following Outward Bound.

44 There were five groups in this study: (1) instructors, (2) referent occupations, (3) experimental students, (4) control students, (5) drop-outs. Data from the four samples were gathered by the investigator, while data on the referent occupations, gathered by other investigators, were used for comparison with the instructors.

Instructors

The instructors' group totalled twenty-five--eighteen men and seven women.

45 The referent occupations were: (1) male and (2) female senior high school teachers; (3) male and (4) female school counsellors; (5) male and (6) female social workers; (7) male Olympic athletes; (8) male airline pilots; (9) male and female psychiatric technicians; (10) male and female artists. The data for these occupations were taken from the 16 PF Handbook.

46 The experimental student group totalled 107, comprising 59 male and 48 female high school students between the ages of sixteen and nineteen years. These subjects were enrolled as students in five of eleven courses run by the Northwest Outward Bound School during the summer of 1970.

47 The student control group totalled 119 and consisted of 52 males and 67 females. All were juniors or seniors at Thurston High School in Springfield, Oregon.

48 Drop-Outs

The drop-outs from the experimental group totalled eight students--six men and two women.

48/
49 Instrument

Forms A and B of the 1967-68 edition of the Sixteen Personality Factor Questionnaire were used. This test was selected for four reasons: (1) since it was first published in 1959 it has been widely used and its literature is ex- // tensive, (2) it can distinguish personality changes when only a brief period elapses between tests, (3) it has alternate forms, which is useful when tests are quite closely spaced, and (4) it can be self-administered, which was important for follow-up as will be seen later.

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54 Instructors

Four operations were carried out on instructor data.

Profiles. Sten scores were used to construct mean profiles for male and female instructors both separately and jointly. This was done not only because the literature reveals definite differences between males and females in the same occupation, but also because joint profiles are useful for mixed occupations, and can be compared with others in the literature.

55 Male and female mean profiles were also computed for instructors rated superior by their supervisors.

There were five such men and four women.

56 Rater-Ratee Differences. The main purpose of this part of the study was to produce profiles for superior and other instructors. This aspect was mentioned earlier under the sub-heading profiles. Subsidiary purposes were: (1) to investigate the significance of differences between instructors based on the ratings, and (2) to learn whether or not the supervisors had done their rating task effectively.

58 Students

Four operations were completed with student data.

Profiles. Combined-sex mean sten profiles were calculated for experimental and control subjects at the three test times (T1, T2, T3) for the sixteen primary personality factors. Profiles were also constructed for experimental group drop-outs based on their initial test.

59 The experimental and control student profiles were compared within groups over time and between groups at time to produce nine pattern similarity coefficients (r_p's). This was done (1) to see how much the control group changed over time due to normal maturation, (2) to estimate how much of the experimental group change could possibly be due to the training, and (3) to see if the training appeared to "wear off" or not.

64 By adopting Cattell's suggestion that scores 1.5 or more sten points apart on a factor may be called divergent, one can focus on those factors on which the sexes diverge. The discrepancies indicate that the women are more reserved (A-), more introverted (Q_I-), more serious (F-) and more self-directed (Q_2+) than the men. Throughout the profile of twenty-three scores the women exhibit more extreme scores than the men, and are thus more unusual members of society.

69 Outward Bound instructors typically have a clear self-concept.

72 The superior instructors scores on 0 and Q_4, although both higher than the others' mean scores, were not very far above the mean. More

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noteworthy are the high scores by the superiors for being imaginative (M+), and experimenting (Q_1+), both important in "getting through to students."

The women instructors were a much smaller (N=7) and more homogeneous sample than the men. Table 4 shows profiles for superior, other, and all female instructors. The superior women are very reserved (A+), extremely imaginative (M+) and very self-sufficient (Q_2+).

72/ As with the superior men, none of the superior women was a talker.
74 All these women were silent, action oriented types and accustomed to achieving success, as shown by // their self-sufficiency score (Q_2+).

75 Profile Comparisons with Referent Groups

In Table 5, the mean profiles of Outward Bound instructors are compared with the ten referent groups by a correlational technique known as the profile similarity coefficient (r_p). It is interesting to note a greater positive correlation between men and women Outward Bound instructors (r_p = 0.38) than between the instructors of either sex and the comparison groups chosen.

All male correlations are low, but nonetheless, two do reach an acceptable alpha level with a positive correlation. Besides the male and female instructor profile similarity coefficient reaching the 5 percent alpha level, the coefficient between male instructors and male senior high teachers is significant at the 10 percent level. This means that the male instructors could become high school teachers, would probably be poor social workers, and are not suited to be school counsellors, athletes, or pilots.

90 From this one can infer that if one averaged the three ratings for each ratee and could correlate the set of averages with a similar set of averages from comparable raters, the result would be about .84. This correlation is high, so the result shows that the raters did an effective job of assessment.

Staff Selection

Data for the regression equation to predict instructor effectiveness are shown in Table 10. Examination of the F ratios indicates that only four of the seven were significant (over 1.0). The significant predictors were the secondaries anxiety (Q_{II}) and poise (Q_{III}), plus the criterion scores on neuroticism and leadership.

92/ Summary
93

The profiles of the instructors showed some discrepancies between sexes, but more general similarities. The instructors were reserved (A-), bright (B+), dominant (E+), tenderminded (I+), very imaginative (M+), forthright (N-), and experimenting (Q_2+). At secondary factor level, both men and women exhibited considerable tough poise (Q_{IV}+). Scores on creativity were high for men and very high for women. The great majority made active attempts to control their environment. Superior instructors were significantly different from the other instructors in the sample.

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Comparing the instructor profiles with referent groups demonstrated that male Outward Bound instructors could become high school teachers, would probably be poor social workers, and were not suited to be school counsellors, // athletes or pilots. The female instructors profiles were dissimilar from high school teachers, school counsellors and social workers. Joint-sex profile comparisons revealed that the instructors would likely not succeed as psychiatric technicians, and though they did have some artistic tendencies, they would likely not succeed as artists either. A regression equation was formulated which could tentatively predict instructor effectiveness.

93 Profiles

The descriptive statistics (mean and standard deviation) provided in Table 11 show mean profiles for the experimental group students at all three test times. Table 12 provides the same data for the control group students so that by simple inspection results can be compared within and across groups. None of the mean scores of either group at any time deviate far from the factor mean (5.5). That is, the deviations do not enter the very low (1-3) or very high (8-10) points bracket. With reasonably large samples such as these that result is to be expected. Larger deviations from the mean, by individuals, are obscured by the total group mean score on any given factor.

98/ 100 The first important result seen in Table 14 is the time one comparison between group mean profiles. The correlation coefficient of .64 is significant beyond the .01 level, and, being positive, indicates a high degree of similarity between the two groups. Thus the control group may be said to be representative of the same population as the experimental group. Therefore, within the constraints of the design, inferences may tentatively be drawn from the effect of treatment or lack of treatment upon the two // groups.

105 Variances Between Personality Factors over Time

The variance approach in this sub-section sought contrasts between factors rather than the comparisons of the correlational approach. Table 15 summarizes the analysis of covariance of experimental and control student PF's at time two partialling out the same PF at time one. The F column indicates that scores on five factors were significantly different at time two, and that two results approached the 10 percent alpha level. Reference to the adjusted mean columns, $MX_{\wedge}$ for experimentals and $MC_{\wedge}$ for controls, indicates which group scored higher than the other. In four of the five significant cases the experimental group scored higher. We may conclude, therefore, that when initial differences are allowed for, Outward Bound makes for significant changes in certain personality factors after only twenty-six days.

114 Tables 17 and 18 show that sex appears in only four of sixteen regressions at time two and six at time three. This means that the women reacted to the course in much the same way as the men. The appearance of two more sex predictors at time three means that the women changed over the

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six months in a slightly different way, but that the kind of person one is at time three is not critically dependent upon one's sex. The investigator finds it impossible to account for the appearance in or disappearance of a factor from a particular regression. There are perhaps some to whom these results are not a mystery.

118 Summary

The profile comparisons between experimental and control student groups showed them to be from the same population. Significantly more change occurred for the experimentals over the first month they were studied than did for the controls. The Outward Bound course appeared to be causally related to the change observed in the experimentals, and this change endured over the six months of follow-up. The drop-outs from the experimental group were shown to be significantly different from that group as a whole. Three factors were isolated which could predict a potential drop-out.

Analysis of covariance isolated the factors on which experimentals and controls were significantly different at time two and time three. Regressions showed that the experimental women reacted to Outward Bound in much the same way as the men. The regressions also showed that the kind of person one was at time three was dependent upon attendance or not at Outward Bound.

119-122 See extract which follows.

Christopher Martin Hendy

Summary

Outward Bound is an important international educational movement which teaches mainly through the medium of the wilderness, by land and by water. Outward Bound has four commonly accepted outcomes: (1) self-esteem, (2) self-awareness, (3) self-assertion, and (4) acceptance of others. One important contributor to achieving those student outcomes is the instructional staff. The primary purposes of this study were (1) to examine the personality profiles and job-effectiveness of male and female Outward Bound instructors and to compare them with referent occupations, (2) to determine the extent and duration of change, if any, in the personality profiles of male and female students sixteen to nineteen years old as a result of a standard Outward Bound course, and (3) to seek to identify personality factor scores predisposing students to drop out of their Outward Bound course.

Twenty-five instructors, eighteen men and seven women, were tested with the Sixteen Personality Factor Questionnaire. They were employed during 1970 by Northwest Outward Bound School based in Eugene, Oregon, and at the end of the

summer the three Northwest Outward Bound School senior administrators rated each one on a ten point scale for job-effectiveness. From the ratings five men and four women emerged as superior instructors.

To investigate the effects of the Outward Bound experience, the 16 PF questionnaire was administered to two groups of students aged sixteen to nineteen years. The experimental group totalled 107, comprising 59 males and 48 females. The control group totalled 119, consisting of 52 males and 67 females from Thurston High School, Springfield, Oregon. The drop-outs from the experimental group totalled eight, six men and two women. The 16 PF test was administered three times to both groups: a pre-test, a post-test twenty-six days later (the duration of the Outward Bound course) and a follow-up six months after test two.

The profiles of the instructors showed some discrepancies between sexes, but more general similarities. The instructors were reserved (A-), bright (B+), dominant (E+), tender-minded (I+), very imaginative (M+), forthright (N-), and experimenting (Q_2+). At secondary factor level, both men and women exhibited considerable tough poise (Q_{IV}+). Scores on creativity were high for men and very high for women. The great majority made active attempts to control their environment. Superior instructors were significantly different from the other instructors.

Comparing the instructor profiles with referent groups demonstrated that male Outward Bound instructors could become high school teachers, would probably be poor social workers, and were not suited to be school counsellors, athletes or pilots. The female instructors would not be suitable as high school teachers, school counsellors or social workers. Joint-sex profile comparisons revealed that the instructors would not succeed as psychiatric technicians nor as artists. A regression equation was formulated which would tentatively predict instructor effectiveness.

The profile comparisons between experimental and control student groups showed them to be from the same population. Significantly more change occurred for the experimentals over the first month they were studied than did for the controls. The Outward Bound course appeared to be causally related to the change observed in the experimentals, and this change endured over the six months of follow-up. The drop-outs from the experimental group were shown to be significantly different from that group as a whole. Three factors were isolated which could predict a potential drop-out.

Analysis of covariance isolated the factors on which experimentals and controls were significantly different at time two and time three. Regressions showed that the experimental women reacted to Outward Bound in much the same way as the men. The regressions also showed that the kind of person one was at time three was dependent upon attendance or not at Outward Bound.

Harold Howe, II,
"The Role of Experience in Education." In Major Papers Presented at the Conference on Experiential Education, Estes Park, Colorado, October 1974.

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5/ 6 A lively counter criticism is developing, fastening in large part on three views: 1) that introduction of experience outside the school or college on a mass basis is impractical // from an economic viewpoint; 2) that an emphasis on experience is anti-intellectual and should be either avoided or adopted with great care; and, 3) that relaxation of compulsory school attendance to promote work/study plans will result in less good education for those who are already shortchanged.

8 A good example of the kind of problem to which I refer is that of giving formal educational credit for experiences outside of school or college. Our academic bookkeeping system of Carnegie units, semester hours, diplomas and degrees is so deeply ingrained in the social fabric that educational innovators have probably quite wisely decided that they should try to join it rather than to beat it. As one considers the possibilities for learning by experience, they quickly put a strain on traditional concepts of the semester hour.

8/ 9 The first is to say that we clearly need more work than we have had on the validation of experiences for educational credit by various forms of testing and evaluation that are more flexible than traditional tests. The second is to respond to the inevitably query, should an Outward Bound experience qualify one for educational credit toward a diploma or a degree? My answer is an unequivocable "yes" as far as a high school diploma is concerned and a more cautious affirmative in regard to a college or advanced degree.

Another large issue that we can't settle here is the persistent argument about what should be in the curriculum and what should not. In a sense it embraces the point I have just been discussing, but in another sense it is a much larger matter. One of the truly significant functions of education is to pass on from one generation to the next the culture that human beings have painfully accumulated in the world. As that culture has become more complex and diverse, as more has been known and recorded about it, and as the volume of comment concerning it has grown especially in modern times, the institutions that provide education (schools, colleges, families, publications, // broadcasting, etc.) have tougher and tougher problems of choice as they respond to such questions as: what should we select to think and talk about? What is important for the next generation to know? Why do we teach what we teach? These questions constitute the educator's continuing dilemma, as well as his raison d'etre, and any comments I make here need to be thought of in the much larger framework of attempting to answer them for our time.

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9 Now I want to take a different tack. Instead of discussing credits, curriculum, and other such matters dear to the hearts of educators, I want to move into the elusive realm of emotion, feeling, attitude, and human relationships. For it seems to me that what happens to young people in this aspect of their lives may be more significant than acquiring information and learning how to manage it. Here I am talking about what educational institutions can do to help produce maturity and confidence, about how they can help people to know themselves better, about how they encourage competitive instincts and develop cooperative attitudes. And it is in this general realm, if I am not mistaken, that our host here, Outward Bound, attempts to make its contribution for both young people and adults.

I will enter that argument only to say that my perspective on today's world makes me place a much higher value on the future benefits to be derived from cooperation in human affairs than I don on the virtues of competition and its outcomes.

11 Outward Bound, as I have known it, offers one interesting way of getting at all this. As I see it, at least, the physical experience aspects of Outward Bound are only a means to other ends. They are lots of fun most of the time and slightly nerve-wracking some of the time, but if I had to pick one element out of the bag of tricks Outward Bound has skillfully devised to promote individual confidence and to encourage new levels of cooperation and human relationships, I would select the cooperative emphasis in many Outward Bound activities. The teams involved in getting a group of people over a fourteen foot wall or down a raging river in a rubber raft are not at all like the teams one finds in athletics -- Little League, college, or professional. They are not made up of people who are good at the job. Just the oppositie in a sense. They are made up of the people who happen to be there.

12 Where I would look for important sources of experience beyond the Outward Bound formulation is particularly in community service and volunteer work. These activities have social value in themselves, and they have also the potential for developing in people the strengths that the future demands.

A. H. Ismail,
"The Effect of A Well-Organized Physical Education Program on Intellectual Performance." Paper presented at Meeting of the Association International Des Ecoles Superieures D'Education Physique, September 5-10, 1966.

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1 The theoretical framework of the study is based on the organismic development theory which proposes that the performance of children is related to certain factors which are highly related to the total motor, emotional,social, and intellectual development.

2 In a recent study, Ismail et al. studied the relationship between motor aptitude and intellectual performance as a cross validation of the previous study. The same conclusions were achieved. Further, they concluded that the best motor predictors of intellectual performance are coordination followed by balance and growth items in that order; while the poorest motor predictors are those items measuring strength power and speed. In addition, it was found that coordination and balance items were the best discriminators among high, medium and low achievement groups.

3 The purpose of the study is to investigate the relative ineffectiveness of a well-organized physical education program on I.Q. and academic achievement scores.

3/4 Methods of Procedures:

In the fulfillment of the above objective, the listed steps will be followed:

Selection of Experimental and Control Groups: Two matched groups according to intellectual performance were established. In a random fashion, one group was designated as the experimental group and the other was designated as the control group. All the 142 subjects involved in the study were selected according to the following criteria:

1. I.Q. scores: The scores on Otis I.Q. were used as the main criterion for selection. Three groups were established namely: high intelligence group which had an I.Q. of 125 and above, medium intelligence group which had an I.Q. of 100 to 115 and low intelligence group which had an I.Q. of 95 and below.

2. Academic achievement scores: The scores on the Stanford Academic Achievement Test were used.

3. Teacher's opinion on intellectual performance: The results of the Otis I.Q. and Stanford Academic Achievement tests were presented to the children's teachers who were asked to indicate whether or not the scores were representative of the child's actual class perform- // ance. Any disapproval by the respective

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4 teachers on intellectual scores of any child resulted in dropping the subject from the study. This criterion was used as a supplement to criteria #1 and #2.

4. Sex: Both sexes were adequately represented.

5. Grade level: The subjects were fifth and sixth grade children.

6. Health status: All subjects were in sound physical and mental health. Subjects were excluded who exhibited the characteristics of definite organic types such as mongoloid, hydrocephalic, microcephalic, and cretin, or who were severely handicapped orthopedically or in hearing, vision or speech or who were suffering from epilepsy which was not under good control with medication.

Each of the experimental and control groups consisted of 71 subjects, 33 males and 38 females between 10 and 12 years of age, inclusive. For each group three sub-groups were established and referred to as "high achievers n = 18," "medium achievers n = 44" and "low achievers n = 9." All subjects were obtained from the Fayetteville school system in Fayetteville, Arkansas.

Developing a Well-Organized Physical Education Program (Experimental Treatment): A physical education program was developed by a team of experts in the Department of Physical Education for Men, Purdue University, and the Department of HPER, University of Arkansas, in cooperation with the personnel in the participating school system.

5 Approach adopted for achieving the purpose: The experimental treatment namely the well-organized physical education program was applied to the experimental group; while the already existing physical education program was administered to the control group. The physical education program associated with the experimental group consisted of a daily period for a whole academic year. Emphasis was devoted to coordination and balance components which are different from the testing items involved in the study. Relative to the physical education program associated with the control group, it consisted of unplanned and unorganized physical activities which already existed in the school system during the time of investigation.

Statistical Procedures: The t test and the analysis of variance were used. In particular, a nested factorial design involving four factors was employed. The four factors were: sex, levels of achievement, paired subjects, and groups (experimental and control groups). In this design, the paired subjects constituting the experimental and control groups were nested under levels of achievement and sex.

7 All F values presented in table 1 were examined with the appropriate degrees of freedom and found to be insignificant except for two F values, one of which is associated with the levels of achievement and the other is associated with the treatment by sex interaction. The significant F value

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associated with the levels of achievement was expected since the three levels of achievement were specified and superimposed before the experiment. As to the significant F value due to treatments by sex interaction, it was found that higher mean I.Q. scores in boys were associated with the experimental rather than with the control groups; while in girls opposite results were obtained; higher mean I.Q. scores were associated with the control rather than with the experimental groups.

In other words, the well-organized physical education program had no effect on mean I.Q. scores in both sexes.

8 As mentioned in table 2, however, there was no significant difference between the total experimental and control groups indicating that the well-organized physical education program had no effect on mean I.Q. scores.

9 All F values presented in table 4 were examined with the appropriate degrees of freedom and found to be insignificant except for two F values, one is associated with the levels of achievement and the other is associated with the treatment. Again, the significant F value associated with the levels of achievement was expected since the three levels of achievement were specified and superimposed before the experiment. As to the significant F value due to treatments, it was found that higher mean value was associated with the experimental group in comparison with that of the control group; indicating that the well-organized physical education program had a favorable effect on academic achievement of children.

10 Conclusions:

A well-organized physical education program has no effect on I.Q. scores. However, it has a favorable effect on academic achievement scores.

Lute Jerstad and John Stelzer,
"Adventure Experiences as Treatment for Residential Mental Patients."
Therapeutic Recreation Journal (Third Quarter, 1973), 8-11.

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9 The adventure model as opposed to the survival model immerses an individual in, rather than pits him against, the natural environment. The adventure model deemphasizes struggle and survival, and emphasizes *accomplishment* and *enjoyment*.

10 Also noteworthy is a recent master's thesis by Johnson (1972) where he provides an extensive overview of past and continuing survival programs.

During the summer of 1972 an adventure camp was conducted by Jerstad Adventures and Parbat Adventure Institute for the Oregon State Mental Hospital. Fifty-one patients, 51 staff and 33 guides participated.

The patients, all volunteers, were chronically ill mental patients ranging in age from adolescent to elderly. None was excluded on account of either diagnostic categorization or physical condition. All types of diagnostic categories were represented: schizophrenic, manic-depressive, etc. Some patients were hospitalized on the basis of criminal insanity for committing such crimes as rape or murder. Length of hospitalization ranged from a few weeks to a maximum of 27 years. Previous treatment included drugs, insulin shock, and other standard treatment modalities.

Results achieved during this first adventure camp conducted for chronically ill mental patients were startling. From the first-day arrival where patients huddled timidly against the walls of the day-lodge building to the third-day breakthrough of Joey who had killed his father and would talk to no one, the strides were great.

11 Two weeks after returning to the hospital Joey was elected president of his ward. Two months later he was released.

The adventure activities by nature required that individuals were responsible to one another, thus fostering a desire to live up to one another's trust. Participants also wanted to please the guides -- not because they were made to feel guilty for inadequate performance but because they highly respected them.

Robert Jickling,
"The Effects of a Course at the Canadian Outward Bound School at Keremeos, B.C." Unpublished, mimeographed, 11 pages plus tables and bibliography.

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3 The purpose of this study was to determine what changes in personality resulted from participation in an Outward Bound course and to study the differential effects which may occur as a result of patrol grouping.

4 HYPOTHESES

(1) An Outward Bound course has a significant effect on the personalities of its participants.
(2) There are significant differences in personality changes between the different groups, or patrols, of students.

DELIMITATIONS

(1) This study was designed to investigate only immediate effects on personality of an Outward Bound course, and not the prolonged effects.
(2) The participants of this study were not matched with a control group.
(3) Only one course, given by one set of instructors and at one Outward Bound School (Keremeos) was tested.
(4) Testing of personality changes was limited to the Sixteen Personality Factor Questionnaire, Forms A and B.

SUBJECTS

The subjects were 50 students participating in the July, 1975 Standard Boys' Course (K47) at the Canadian Outward Bound School. Their ages ranged from 16 to 37 with the majority being 16, 17, and 18. The participants were divided into six patrols.

5 DESIGN

This experiment employed a 6 x 2 factorial design with 16 dependent variables. The 16 dependent variables represented the 16 factors of personality isolated by the test instrument.

The participants in the six patrols were tested twice - on the first night of their course, and again two nights before the completion of the course. The scheduling of the second test was dictated by the available free time that could be used for testing. Since the bulk of the course had been completed by this stage, it was considered to be a suitable time for testing. Patrols 1, 2, and 3 were administered test A initially, and test B at the time of the second testing. Patrols 4, 5, and 6 took test B first followed by test A.

Robert Jickling

Page 6 The design used for this experiment would normally allow for multivariate analysis of variance. In this case, however, the numbers in each of the six patrols were less than the total number of dependent variables, rendering the multivariate analysis invalid. The alternative analysis, employed in this study, consisted of 16 separate one-way analyses of variance. This was at the risk of some increase in alpha error.

10/11 CONCLUSIONS

(1) The July course at the Canadian Outward Bound School did have a significant effect on the personalities of its participants. They tended to // become more outgoing, warm-hearted, easy-going and participating (A+), more assertive (E+), and more forthright (N-).

(2) There were significant differences in personality changes between the different groups, or patrols, of students tested. Groups differed in assertiveness (e), conservativeness (Q1), and degree of discipline (Q3).

RECOMMENDATIONS

(1) Further investigations are required to establish the reliability of the 16 PF Questionnaire for measuring changes in personality as they apply to an Outward Bound setting.

(2) Further investigations are needed to identify the cause of the differences which existed between the patrols.

(3) A test instrument, such as the 16 PF Questionnaire, should be available to instructors who wish feedback regarding their own effectiveness.

Donald R. Johnson,
"Evaluation of Two Adventure Programs." 1972. Unpublished thesis,
The University of Calgary.

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1 Generally speaking Adventure Programs provide opportunities for the participants to extend their physical and emotional limits. These programs normally take place in isolated mountain or wilderness areas and involve the participants in activity oriented experiences that are exciting and dangerous. Such activities include mountain climbing, rock climbing, running rapids, survival techniques and a variety of others.

3/4 Outward Bound estimates at least 300 different programs are presently operating in the United States. For this study 55 // organizations were contacted; responses were received from 35 (see Appendix I). A brief description of some of these programs follows.

17 In surveying these various programs, a useful way of examining their objectives is in relation to the following three specific areas:

1. Personal growth - Confidence, maturity, initiative.
2. Social Functioning - getting along with others, accepting another person's strengths and weaknesses and respecting them for what they are.
3. Physical Functioning - better physical fitness as far as cardiovascular condition is concerned.

20 Hypotheses that have been formulated in the area of Personal Growth

Hypothesis #1
AT LEAST 50% OF THE PARTICIPANTS WILL FEEL THEIR CONFIDENCE INCREASED.

Hypothesis #2
AT LEAST 50% OF THE PARTICIPANTS WILL FEEL THEIR INITIATIVE INCREASED.

Hypothesis #3
AT LEAST 50% OF THE PARTICIPANTS WILL FEEL THEIR GENERAL MATURITY INCREASED.

Hypothesis #4
THE GROUP PROFILES OF THE CATTELL'S 16 PF WILL SHOW A SIGNIFICANT CHANGE IN SCALES C, E, AND H COMPARING THE BEFORE TEST WITH THE AFTER TEST.

23/24 Hypotheses that have been formulated in the area of Social Functioning

Hypothesis #5
PARTICIPANTS WILL HAVE A HIGHER PERCENTAGE OF STRONG RELATIONSHIPS AT THE END OF THE PROGRAM THAN THEY DID AT THE BEGINNING AS MEASURED BY THE SOCIOGRAMS FILLED OUT BY THE LEADERS //

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24 Hypothesis #6

PARTICIPANTS WILL FEEL THEY HAVE MORE MEANINGFUL RELATIONSHIPS WITH THE OTHER GROUP MEMBERS AT THE END OF THE PROGRAM THAN THEY DID AT THE BEGINNING AS MEASURED BY THE RELATIONSHIP QUESTIONNAIRE FILLED OUT BY THE PARTICIPANTS.

Hypothesis #7

AT LEAST 50% OF THE PARTICIPANTS WILL FEEL THEIR ABILITY TO WORK WITH OTHERS INCREASED.

27 Hypotheses that have been Formulated in the area of Physical Functioning.

Hypothesis #8

PARTICIPANTS WILL RUN THE 1½ MILES IN 10% LESS TIME AT THE END OF THE COURSE THAN AT THE BEGINNING.

Hypothesis #9

IF THERE ARE THOSE THAT RUN THE 1½ MILE IN GREATER TIME AT THE END OF THE PROGRAM, THEIR "F" SCORE ON CATTELL'S 16 PF WILL BE SIGNIFICANTLY LOWER THAN THOSE WHO RAN IT IN LESS TIME.

Other Hypotheses that have been Formulated.

Hypothesis #10

PARTICIPANTS IN GROUPS WITH LEADERS SCORING HIGH IN EMPATHY, WARMTH AND GENUINENESS WILL INCREASE MORE THAN PARTICIPANTS WITH LEADERS SCORING LOW IN EMPATHY, WARMTH, AND GENUINENESS.

Hypothesis #11

AT LEAST 50% OF THE PARTICIPANTS WILL FEEL THE PROGRAM'S EFFECT WILL INFLUENCE THEM THE REST OF THEIR LIVES.

34 Administration of the tests

The evaluative package will be administered at the following times:

Before or First Day

Cattell's 16 PF Forms A and B
Cooper's 1½ mile run
Sociogram
relationship questionnaire

During - at regular intervals twice during the program.
sociogram
relationship questionnaire

After or Last Day

Cattell's 16 PF Forms A and B
Cooper's 1½ mile run
Sociogram
Relationship Questionnaire
General Questionnaire

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54/
55 In summarizing the data, it is seen that Hypotheses 1, 2, 5 and 6 were supported; hypotheses 3, 7, 8, and 11 showed change // in the desired direction, but not as much as was hypothesized. Hypotheses 4 and 9 were disproved and hypothesis 10 could not be tested.

56/
57 Areas for Further Research

1. The Cooper 1½ mile run is an effective field test for cardiovascular fitness. More data is needed in this physical area where so many claims are made.

2. Comparison of lengths of programs. What differences does it make if a program is 2, 4, 8, 14, or 26 days long? Is there a point where returns begin to diminish or is there continual increasing benefits no matter how long the program lasts? What about plateau stages?

3. Comparison of different age groups. Do 14-year-olds need different emphasis than 18-year-olds? Do teenagers get something different out of the programs than adults? Does one age group improve more in one area than other age groups?

4. How do Adventure Programs compare with other experiences such as regular camping programs? Are both just as effective? Are they more effective in different areas? //

5. Do leaders with high scores on Warmth, Empathy and Genuineness provide a more meaningful experience for those in their groups?

6. What is the long term value of Adventure Programs? Do the effects continue after 6 months or after a year? If a follow up on Strutt's study or Fletcher's study (where they administered the Cattell's 16 PF) were done now, would it still be significant?

Nona Kahn,
"Experiential Outdoor Education in the Junior High School: The Colorado Springs Experience." Paper prepared for Colorado Outward Bound School, February 1976, 38 pages.

General Notes

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i In 1967 the El Pomar Foundation awarded the first of a series of grants to the Colorado Outward Bound School to enable it to develop, in conjunction with the Colorado Springs School District 11 in Colorado Springs, an academically cogent program for use in the school based on Outward Bound concepts.

1 According to the educators who work with junior high school students the ages 11 to 13 are not called "the awkward stage" without justification. Consistently the six principals used the words "exploratory," "transitional," "unconfident" when describing the age group.

The extreme vulnerability of their students seems to make junior high teachers, perhaps as no other group of educators, extremely aware of their function as role models and extremely sensitive to influence they can exert on the developing child's skill, attitudes and self-image.

6/7 Given the overall goal which underlies the use of E.O.E. in the junior high, it is important to see how schools develop programs to fit their individual objectives. The personalities of the six schools - Washington Irving, Oliver Wendell Holmes, Ralph Waldo Emerson, North, South, and East - differ from one another in academic emphases, intellectual abilities of students, racial and socio-economic mix of students, age and longevity of faculty, administrative-faculty cohesiveness, and influence of the principal. Each has an active E.O.E. // program developed because of, in response to, and in accordance with, these variables. However, by virtue of the organizational similarities the schools share as part of District 11, and by virtue of their common source of influence, Outward Bound, the programs do have a number of significant dynamic similarities. These dynamics - transportation, financing, student selection, and faculty and principal support among others - will be discussed in the next section.

19 What makes an E.O.E. program work? And work well?

Intraschool and District communication:

20 ...the first real dynamic that affects E.O.E. in the schools is Central Administration support.

21 Principal-faculty reciprocity: It is interesting to note, however, that at the schools which feel most hard pressed by lack of Central Administration support, the principals offer the least active inter-school support to their E.O.E. faculty. These schools also have the least consistent faculty involvement and the least unified programs.

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Thus the second dynamic for effective E.O.E. program must be not just theoretical support by the principal, but an active principal-faculty cohesiveness in which there is an appropriate division of duties corresponding to the expertise of each contributor.

Mutual faculty support: The third dynamic, mutual faculty support, does not just happen - it is cultivated.

23 Program design and student participation

Also, there is an over-emphasis in the schools on equating mountain environments with wilderness. To date none of the schools appears to have considered developing a program using either the vastness of the plains or confines of the city as a wilderness setting even though Colorado Springs offers excellent potential for both.

Economics and materials: funding, transportation, equipment, teacher, release time, and scheduling: Even if all the conditions of the other four dynamics were optimal at each school, the biggest contingency between a successful and unsuccessful E.O.E. program would be economics and materials.

25/ 26

Guidelines for an Effective Junior High School Experiential Outdoor Education Program

Asked what guidelines they would give to a junior high school embarking on an E.O.E. program for the first time, the teachers, principals, and administrators offered the following suggestions:

1. Establish E.O.E. goals with the students in mind. Develop clear E.O.E. goals and then develop the program in accordance with those goals. Consider such factors as the academic and emotional capabilities of the students. Decide if one program can really serve the students' need, or if a variety of programs will be necessary.

2. Create a management scheme based on resources available within the school and within the District. Find out the skills of each faculty member - including the principal - and how much every person is willing to contribute to the program, then encourage that contribution.

3. Keep communications open and active not only within the school, but between schools and with the Central Administration. //

4. Find an adequate source of funds before program activity begins. Consider how long the funds will last and what happens to the program if they run out.

5. Keep records of finances and programs both for current information needs and long range planning.

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6. Take time out periodically for reflection. The purpose of E.O.E. is not to create a new academic bureaucracy, but to provide experiential educational opportunities for faculty as well as students. Burned-out teachers and outdated program plans kill the intent of E.O.E. Be willing to make changes and admit mistakes.

Richard Katz and David Kolb,
"Outward Bound and Education for Personal Growth." Unpublished,
Office of Juvenile Delinquency, HEW Grant No. 66013.

General Notes

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1 Outward Bound is a 26-day residential school conducted in an isolated, wilderness setting. The typical course is for males ranging in age from 16-23, and coming from a variety of racial, religious, educational and socio-economic backgrounds. The curriculum contains a variety of primarily physical tasks, geared to the resources and demands of the school's setting (see Appendix A for a sample curriculum). The tasks are meant to become increasingly difficult for students, both physically and psychologically. The school tries to challenge its students to go beyond what they considered their (psychological and physical) limits. The attempt is made to use such "stretching" experiences to increase students' knowledge and appreciation of themselves and others.

The Massachusetts Division of Youth Service had collected preliminary evidence that an Outward Bound school experience reduced recidivism in adolescent delinquent boys committed to a correctional authority. To obtain more complete and conclusive evidence, a new research project was launched to study the effect of Outward Bound on Juvenile delinquents. This new research effort included a team of participant-observers.

1/2 Why the need for participant-observers? Though there was already preliminary evidence that an Outward Bound experience reduced recidivism // there was little impartial information about what constituted an "Outward Bound experience." If delinquents were being affected, we could not go far toward suggesting "why." The "treatment" condition of the study had to be described.

2 Our goal as participant-observers was to understand Outward Bound as a culture, as a system of education for personal growth.

3 To record our observations we employed a portable tape recorder (for interviews, observations) and a daily journal.

3/4 Generally we participated along with one of the regular groups of students as they went // through the course. At times we functioned as assistants to the instructors, most often as students.

9 Once at the top I joined a special league, a league which was created just on that day, a league whose admission was climbing from the bottom of that rock face to the top. It was not a hard league to join. Everybody but one or two of the forty boys made the league, but still, it was a league, and being a member of it brought you that much closer to the people around you.

15 When, for example, students talk about their "solo" one is acutely aware that many of their descriptions have already appeared in various public

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relations media. On further exploration with these same students they emphasize different but very important aspects of their solo, such as their boredom, or their disappointment in not making more constructive use of their time. Students describing their own experience in the language of the public relations media is unfortunate. It becomes even more serious, however, when ideology is substituted for experience when the Outward Bound ideology actually prevents students from having an Outward Bound experience. For it is clear that only when the student has his own experience, does he have an Outward Bound experience.

16 For some, Outward Bound appears to have a diminished impact. Some of the more mature college students are less motivated than the usual student in the course who tends to be very much at the high school stage. The mature student has more perspective and is not as thoroughly immersed in the Outward Bound culture.

There are other types of students who may be adversely affected. A boy who has intense psychological problems does not seem appropriate for Outward Bound even though he may come to the school because he wants to change. If a boy has intense fears, or an intense need for reassurance, it presents particular problems. Having him confront fear can lead to increased fear unless the confrontation is handled with extreme sensitivity and competence.

20 The Outward Bound ideology is a key influence in shaping the culture. It becomes difficult not to meet challenges or finish the course. There is a prevalent value that only the "strong," the "men" are able to finish the course. In an event like the marathon, individuals who do not finish or do not cross the line running are looked down upon.

22 Many students approach Outward Bound as if it were the initiation rite which will effect their transition from boyhood to manhood.

23 Staff members are persons who have completed tasks similar to or more demanding than the Outward Bound program. Their almost unquestioned expectation is that their students will also complete the Outward Bound course. In fact, part of their reputation as instructors depends on how all their group completes a task or finishes the course.

B. The educational method is experience based. Self-confrontation is a major technique.

Critical self discoveries are brought about by placing the student in situations where he must confront himself and his abilities. The situations demand actions which challenge his self-definition and encourage him to explore and surpass what he thought were his limits. They are designed so that the student has to confront his own limitations, the fear, etc., rather than avoid it or smooth it over.

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24/
25 The technique of self-confrontation seems critical to personal growth or self-realization. "Identity crises" (as described by Erik Erikson) and "peak experiences" (as described by Abraham Maslow) are associated with self-confronting experiences. Both of these phenomena are often // growth-producing. In the identity crisis the individual raises issues of "Who am I?", "Where do I want to go from here?" In the peak experiences, the individual can "get outside of himself", get perspective on what he is doing. He can feel or see more intensely than is usual and discover new aspects of his emotions and thoughts. Outward Bound adds an intensity and ultimate quality to self-confrontation because the confrontation often demands that the student act, not merely talk, and because the student's physical life can be at stake.

25 But self-confrontation at Outward Bound does not automatically engender personal growth. Self-confrontation is often an intense and volatile experience which requires sensitive attention. Staff guidance as manifested in preparation for and follow-up after experiences become critical. For example, if experiences are to be self-confronting, the "limits" of a student must be sensitively assessed.

28 D. The Outward Bound program is explicitly uniform, yet a wide range of individual response is acceptable.

31 But there are two particularly important areas in which psychological preparation and follow-up seem inadequate, thereby decreasing the educational effectiveness of experiences. First, the intense, volatile emotions (e.g., fear) generated by some experiences seem inadequately handled. Second, the variety and range of particular experiences seem inadequately explored. Though some staff worked effectively in these two areas, there are few formal structures supporting them in this effort.

33 Staff is critical to the success of the educational method.

38 Outward Bound functions more in terms of experiences, actions and activities than explicit educational principles. Its theory of education and personal growth is implicit and unarticulated. There are, however, educational principles which guide the selection and development of these experiences and activities.

Encouraging personal growth is perhaps the basic and overriding educational principle at Outward Bound. The six other educational principles listed below are in a sense vehicles for encouraging students' personal growth. For example, Outward Bound tries to develop a student's capacity for persistence, as one important dimension of personal growth.

One very important aspect of this educational principle is that personal growth be sustained and generalized after Outward Bound. The Outward Bound idea is to educate through mountain-climbing, canoeing or navigating on the open sea.

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42 Developing the ability to deal with danger, in particular the fear which is evoked (developing of courage).

46 Developing the capacity for persistence (developing will-power).

47 Developing a style of functioning which includes pacing oneself, living efficiently and economically, and relying on one's natural resource.

51 Developing interpersonal competence and sensitivity to improve task performance.

53 Impressive learning could occur if interpersonal exploration were encouraged. Since the group composition is heterogeneous and there are a number of intense, shared experiences, groups could communicate about important things. This kind of interchange does happen spontaneously, on occasion, and the results seem so fruitful and important that it may be wise to encourage this interpersonal sharing more explicitly.

56 Developing a desire to serve others.

58 Developing a religious attitude.

61 Success is based in part on student's actions, how much of the Outward Bound program he completes.

Success is based primarily on the student's reaction to the course, particularly his attitude.

62 Criteria of success are ambiguous and individualized.

64 Staff decides who passes the course.

Giving staff this decision-making power, however, seriously undercuts the idea that the student himself must be the ultimate judge of how he did in the course.

67 Certain qualities of the Outward Bound experience particularly encourage urban "juvenile delinquents" to change.

69 Certain qualities of Outward Bound make it particularly difficult for these delinquents to change.

They can be unusually unprepared for Outward Bound. Many of the delinquents are physically "out of shape." This makes it harder to be involved in the program, to participate in the physically demanding tasks. Many cannot swim. This means they must learn how to swim, as well as develop swimming endurance and skills. Very few of the delinquents have any wilderness experience.

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70 Their view of Outward Bound is sometimes quite limited. The Outward Bound course can be seen merely as an alternative to traditional punishment methods. Some of the delinquents go through the Outward Bound course just to get their diploma (they are often told it is necessary in order for them to be paroled). They respond to Outward Bound as they would respond to the more traditional methods of punishment.

71 Outward Bound groups composed entirely of delinquents

Typically, there is no more than two delinquents in any group of 12 students. On two occasions a group composed entirely of delinquents (a homogeneous group) was tried. The homogeneous group did not easily develop ways of functioning effectively at Outward Bound. They did not find it easy to develop group organization and collaboration

Francis J. Kelly and Daniel J. Baer,
Outward Bound Schools as an Alternative to Institutionalization for Adolescent Delinquent Boys (Boston, Mass.: Fandel Press, Inc., 1968).
Includes a Participant Observers' Report by Richard Katz and David Kolb.

General Notes

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1 This report presents the results of a two year demonstration project which involved one hundred twenty adolescent delinquent boys, sixty of whom attended Outward Bound schools and sixty were treated in a routine manner by a juvenile correctional authority.

4 Many writers (Erikson, 1956; Fannin and Clinard, 1965; Gibbens, 1958; Jesness, 1967; Sontag, 1958; Witmer, 1960) have commented on the delinquent's negative self-concept, lack of personal identity and frequent employment of anti-social behavior as a masculine protest. Also, professional workers in the field of delinquency have reported on the delinquent's proclivity for action as a solution to conflict and tension. This preference for action may explain the apparent failure of extant and traditional cognitively oriented "talking therapy" to modify the undesirable behavior of delinquents.

5 Outward Bound Schools expose the adolescent to severe physical challenge. The object is to build physical stamina and to push each individual to his physical limit. Thus the adolescent is called upon to achieve beyond what he believed he was capable; to demonstrate his competence in the most meaningful way--by action. An underlying assumption of the present study was that by participating in an Outward Bound program the delinquent's self-concept would improve and he would adopt a more socially acceptable mode of behavior.

5/6 The primary purpose of the present study was to determine if an Outward Bound experience was more effective in reducing further delinquent behavior in adjudicated delinquent adolescent boys than a traditional training school experience. The criterion by which effectiveness was measured was a comparison of recidivism rates in two matched groups of adolescent delinquent boys, one group attending Outward Bound, the other attending a training school. For purposes of this study recidivism was defined as return to a juvenile insti- // tution for violation of parole or commitment to an adult institution for a new offense. An additional purpose of the project was to identify those delinquents for whom Outward Bound was a successful experience. To accomplish this randomization in selection within broad limits was necessary. Further, it was hoped to determine if an Outward Bound experience was effective with a sufficient number of boys so as to make it economically feasible for the Division of Youth Service to modify existing institutional programs and establish a state operated, small, short-term facility with an Outward Bound like program. Again, it was not presumed that the present program at Outward Bound Schools was capable of being transferred *en toto* to a state operated facility for adolescent delinquents. It was expected that there would be modification.

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Page 13 One hundred twenty adolescent delinquent boys were the subjects for the study. Sixty were selected from the Division of Youth Service's Reception Center during the period May-September, 1966. The remaining sixty were selected from the institutional populations of the Lyman School for Boys and the Industrial School for Boys at the same time. Thirty boys from the Reception Center group and thirty from the institutional group attended an Outward Bound School and served as the Experimental Group. The remaining thirty from the Reception Center and thirty from the institutions were handled in a routine manner by the Youth Service Board and served as the Comparison Group.

14 An additional dimension to the study resulted from the Outward Bound School's policy to place one delinquent in each brigade of twelve boys, thus associating with eleven non-delinquents. Since the purpose of the study was to explore the value of an Outward Bound like program within the Division of Youth Service, wherein all participants would be delinquents, it was deemed necessary to have one brigade composed of twelve delinquents complete one of the Outward Bound courses. The purpose of this was to attempt to ascertain whether delinquents were responding to the achievements of their non-delinquent companions or if a homogeneous group of twelve delinquents could complete the program successfully. The homogeneous group attended the third course at the Minnesota Outward Bound School. To increase homogeneity they were selected from one institution--Lyman School.

14/15 Criteria for Selection

The following criteria were employed for selection of subjects:

1. Age: Fifteen and one half years and older.
2. Physical health: An absence of any physical disability that might endanger the boy or interfere with his performance.
3. Mental health: An absence of severe psychopathology, e.g., psychosis, phobias of height, water, being alone, etc. was determined by the clinical data in the file.
4. Intelligence: Severely retarded boys were excluded. A minimum I.Q. score of 70 was established. //
5. Assaultive behavior: Boys with a history of violent assaultive or sexual acts were excluded.
6. Voluntary participation. Only volunteers were considered eligible for the study. One subject selected for the Experimental Group did not volunteer and was replaced.

17 ...objective personality inventories were decided upon.

19 For purposes of this study it was decided to employ the Jesness Inventory (Jesness, 1967). The Jesness Inventory was developed due to the

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lack of an adequate structured test for use with delinquent children which would be sensitive to change over a short period of time yet stable enough to provide a measure of personality types. An examination of the Inventory and a review of previous work with it recommended it highly for our purposes.

The Inventory provides scores on eleven personality characteristics. These are: 1) Social maladjustment; 2) Value orientation; 3) Immaturity; 4) Autism; 5) Alienation; 6) Manifest aggression; 7) Withdrawal; 8) Social anxiety; 9) Repression; 10) Denial; and 11) Asocial Index.

The use of this scale has proven reliable in predicting delinquency and measuring change as a result of a training school experience.

20 A Semantic Differential (Osgood, 1957) was selected as the measure of self-concept since it represents a procedure for measuring the connotations of any given concept for the individual.

The subjects were administered both tests before and after their experience at Outward Bound to ascertain: 1) if change had occurred; 2) the direction of the change; and 3) to determine the value of the tests as predictors of success at Outward Bound and on parole adjustment.

24/ 25 It was hoped initially that the // Comparison Group would be selected at the same time as the Experimental Group. However, due to a lack of age eligible boys the Comparison Group selection continued an additional three months.

25 The incidence of recidivism, as defined by this study, following nine months of parole was determined by a review of the Division of Youth Service files as well as the files of the Massachusetts Commission on Probation where all court appearances in Massachusetts, juvenile and adult are recorded.

26 Table 3 reveals that subjects who were treated in a routine manner, most of whom attended public training schools, had a greater percentage of recidivism than those who attended Outward Bound. Using a chi square test this outcome was at the .07 level of significance (one tailed hypothesis) and tentatively supports the expectation that the Outward Bound experience could be a more effective method of reducing recidivism in adolescent delinquent boys than the present routine management of these subjects in public institutions.

31 It may be seen that whereas 33% of the first commitments recidivated in the Experimental Group, 47% of the first commitments in the Comparison Group were returned. Since this outcome was significantly different ($p < .05$) for the two groups and since the two groups were initially matched for this background variable, it may be that Outward Bound has a greater influence on those delinquents who were committed for the first time than for those who had prior periods of institutionalization.

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38 In Table 10 it may be seen that the mean age of first court appearance and first commitment for recidivists in the Experimental Group is significantly younger than the non-recidivists. However, no such difference was found within the Comparison Group. This outcome suggests that Outward Bound may have a greater impact on the delinquent whose first court appearance occurs at some time after puberty and possibly as a reaction to an adolescent crisis. However, those delinquents whose first court appearance occurred prior to puberty represent the more characterologically deficient who do not respond to currently employed correctional practices or to Outward Bound. The reason for the insignificant results of these same variables in the Comparison Group may be that existent training school programs do not realize positive change in some who have this potential. If this interpretation is true then greater attention should be focused on delinquents whose first court appearance occurs in late adolescence.

38/ 42 The Experimental and Comparison Groups were examined for differences on the ten concepts of the Semantic Differential and the eleven scales of the Jesness Inventory. Tables 11 and 12 reveal no differences between groups on any of these measures. Thus, it is unlikely that the subsequent difference in recidivism between groups could be attributed to predisposing conditions as represented by // these psychological measures.

42/ 44 In Table 13 it may be seen that the Minnesota had a significantly higher rate of recidivism than Colorado or Hurricane Island. Whereas 42% of the Minnesota School subjects recidivated only 11% of Hurricane Island subjects and 0% of Colorado School subjects were returned to juvenile or adult institutions. One possible explanation for this outcome // would be the differences in the programs of the three schools. The participant observers' report (See Appendix A) indicated that the Colorado and Hurricane Island Schools rated high in the excitement and challenge of the tasks the completion of which produced feelings of achievement and competence. However, the Minnesota School was rated as having a low excitement level and a greater emphasis on reflection and intellectualization. Perhaps, this latter approach is less effective on the action oriented adolescent delinquent.

67 In order to determine if performance at Outward Bound is related to intelligence, I.Q. scores were arrayed and subjects were classified as being above or below the median (104). From Table 33 it is apparent that the more intelligent subjects as measured by a standardized intelligence test were also rated as better performers by the Outward Bound instructors. Thus, although intelligence was not related to recidivism, it was related to other personality qualities perceived by the instructors.

67/ 72 Table 34 presents a comparison of the before and after Outward Bound scores on the Semantic Differential for the Experimental Group. It may be seen from the lower score on the post Outward Bound rating of the concept "I am" that the score of the Experimental Group significantly improved ($p < .001$). This outcome suggests that the Outward Bound experience provided these delinquents an opportunity to re-evaluate themselves and their

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abilities. This outcome is further // supported by the significant improvement in the concept "I would like to be" ($p < .05$). The latter measure may represent an increased level of aspiration as well as a more mature and socially acceptable adjustment. Interestingly, there was no concomitant improvement in the concept "I will be." Perhaps, these delinquents recognized the limited range of possibilities available to them for educational, economic and social advancement.

75 Table 38 and 39 reveal that on the post Outward Bound performance on the Semantic Differential and the Jesness Inventory no difference were found between recidivists and nonrecidivists. Thus, it is concluded that the recidivists in the Experimental Group could not have been identified prior to or after Outward Bound on the basis of their performance on these measures.

82 Since there is an improved idealized self-concept "I would like to be" ($p < .05$) as well as present self-concept "I am" ($p < .01$) in the nonrecidivists, it may be that concomitant improvement for both concepts are a necessary condition for long term behavioral change. The absence of significant change in the future self-concept "I will be" also may be an important finding. Perhaps, the nonrecidivists fail to recognize the importance of this positive internal change while exaggerating the negative influence of their social and physical environment on their subsequent behavior.

85 In general, on the basis of the Jesness Inventory score changes, it would seem that Outward Bound had a more pervasive impact on personality characteristics for those subjects later identified as nonrecidivists. This outcome is understandable when one examines the background variables presented in an earlier section of this report in which the recent onset of delinquent behavior and a more favorable home environment of the nonrecidivists may have contributed to their openness to change. On the other hand, the recidivists due to their chronicity of delinquency and their poor home environment may have established a more inflexible response pattern.

85/86 An important methodological implication of these results is that although the Jesness Inventory is a sensitive measure of change, the absolute scores themselves may not be useful predictors of recidivism. It would seem that a better way of predicting future delinquency is not // employing a normative reference point but rather the change from his own personal reference point.

90/91 While only 20% of the Experimental Group were subsequently identified as recidivists, 34% of the Comparison Group were returned to an institution. Background variables such as age of first court appearance, presence of both parents in the home, first institutionalization as well as type of offense are important predisposing conditions and were important contributors to the differences in recidivism found among the three Outward Bound Schools. Although the three Outward Bound Schools were based on the same

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philosophy, the unique physical environment of each school as well as the action oriented emphasis of its program and its physical challenge to the participants may also have contributed to the recidivism differences. The Minnesota School provides greater reflection and intellectualization while the Colorado and Hurricane Island Schools provide greater peaks of excitement.

In the Experimental Group subsequent recidivists were less likely to be awarded a certificate of successful completion and were rated less favorably by the instructors than those delinquents who were not // returned to an institution. However, the recidivism rate among subjects in the homogeneous patrols was the same as that among subjects in nonhomogeneous patrols.

In general, all the subjects improved in their self-concept and in social attitudes as measured by the Semantic Differential and the Jesness Inventory. However, those subjects who did not recidivate also improved in their concepts "I would like to be" as well as "boys who don't get into trouble." While only two of the eleven Jesness Inventory Scales scores improved for the recidivists, nine scale scores significantly improved for the nonrecidivists.

91 These results suggest that for some delinquents an Outward Bound experience is a desirable short term alternative to traditional institutional care and is an effective means of promoting positive change. However, background variables such as a childhood history of delinquency, prior institutional experience or an absence of both parents in the home may outweigh whatever advantages Outward Bound can offer.

98 This participant-observer report, then, presents our understanding of Outward Bound as a system of education for personal growth.

105 Arriving at the top of the rock face after my climb was not exhilarating, not exciting; it was just good to be there. Once at the top I joined a special league, a league which was created just on that day, a league whose admission was climbing from the bottom of that rock face to the top. It was not a hard league to join. Everybody but one or two of the forty boys made the league, but still, it was a league, and being a member of it brought you that much closer to the people around you. Closer, not because you knew them any better, but because you and they had gone through an unusual experience together.

107 Moreover, there is an assumption that Outward Bound can be successful with all types of boys, that each boy will benefit in his own way.

110 But the ideology, by its very power and pervasiveness, can also obstruct the educational effectiveness of Outward Bound. Expectations based on the ideology are often unfulfilled. The Outward Bound ideology does not emphasize gradual change. The ideology considers change in a broad and dramatic manner, as in, for example, "learning to deal with fear."

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122 Action is constantly required. In an important sense, things don't happen at Outward Bound until people "do" something. It is almost as if the wheels are set in motion as soon as someone does something rather than just thinking or talking about it. There is an emphasis on task performance.

124 D. The Outward Bound program is explicitly uniform, yet a wide range of individual response is acceptable.

There is a strong pressure at Outward Bound for everyone to receive the standard treatment, for everyone to take the same course. This is a particularly significant pressure considering the variety of boys attending an Outward Bound school. There are actually, however, many different courses at any one Outward Bound school session. In terms of his actions, and more importantly in terms of his reactions and attitudes, each boy has essentially his own course.

125 ...student bravado is often taken literally. Students who boast about their ability to do certain things are usually challenged to put their words into action. This often creates more difficult task requirements for students inclined towards bravado.

126 E. Psychological preparation for and follow-up after an experience are not emphasized.

As social scientists, we must be especially careful at this point in the report. We must try to control our professional bias toward emphasizing psychological functioning. We will try not to misinterpret Outward Bound so as to confirm our bias. Outward Bound draws some of its unique educational impact from its very avoidance of "psychologizing."

129 F. Staff is critical to the success of the educational method.

Without the proper guidance from staff, the Outward Bound program (for example, tasks, events) would work only fortuitously. The physical locale, the tasks to be performed, the schedule, -- all seem ancillary to the Outward Bound experience.

131 There seem to be at least three important aspects to a good staff member: technical proficiency, skill as an educator, and dedication to the Outward Bound idea. Most of the Outward Bound staff are exceptionally qualified in the technical realm.

132 Fewer on the Outward Bound staff are effective educators. It takes great skill as an educator to know when a person is stretching his limits. The effective educators usually were not among the most technically proficient. Having some instructors who were not physical "supermen" helped students communicate with staff and learn from them. An instructor who became winded in the morning run became more accessible to the student who had a similar experience. The primary teaching mode is by example.

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134 A. Encouraging personal growth.

One very important aspect of this educational principle is that personal growth be sustained *and* generalized after Outward Bound. The Outward Bound idea is to educate *through* mountain-climbing, canoeing or navigating on the open sea.

135 Generally, students do not intuitively and/or immediately see the relationship between e.g. climbing a mountain and the issues which concern them back home. The most obvious case of this is the city-dweller who talks of the absence of mountains or lakes on his block. This concrete approach is quite prevalent and takes time to overcome.

142 D. Developing a style of functioning which includes pacing oneself, living efficiently and economically, and relying on one's natural resources.

146 We talked for example of how the educational impact of a fear experience might be increased if the student could share this experience with others. But sharing feelings of fear in a constructive way usually requires a good deal of understanding, and trust among people. A relationship of such depth is not frequent at Outward Bound.

The fact that interpersonal relations are oriented toward task performance also influences the concept of Outward Bound as a "meltingpot." There is great opportunity for Outward Bound to be a melting-pot experience.

150 The de-emphasis on exploring interpersonal issues seems to result from both characteristics of the Outward Bound program and staff preferences. The Outward Bound schedule is a tight one. As we saw in the climb up the rock face, there is little time left over after all students have had a chance to perform the task. The time students spend waiting for their turn invariably remains waiting; rarely does anything with interpersonal intensity get started. Moreover, there is an understanding that exploration of interpersonal issues can make task performance ineffective, at least in the early stages. Again, because of constraints of time, as well as the fact that real dangers exist with many tasks, tasks must be performed effectively quite soon. In isolated instances, for example, in some of the initiative tests, interpersonal issues are allowed to intrude upon the effectiveness of task performance. But one's life does not depend upon the way the initiative test is solved. Finally there are few structures which encourage exploration of interpersonal issues. There are, for example, few times devoted to group discussions; and not enough time is given to develop the discussion in depth.

Staff preferences in this area are critical. Most of the Outward Bound staff do not see their jobs as encouraging interpersonal exploration. They feel that task performance is the essential aspect of Outward Bound, the key challenge experience.

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151 F. Developing a desire to serve others.

Outward Bound works in three areas which are essential to developing the desire to serve: (a) confidence in being able to help others; (b) the development of certain service skills, e.g. first aid; and (c) a service attitude or orientation.

156 A. Success is based in part on student's actions, how much of the Outward Bound program he completes.

Most students complete all of the Outward Bound program. Completing tasks is particularly important in the mind of the students. It is an easy way for them to measure what they are doing in the course, and how they compare with fellow students.

159 D. Staff decides who passes the course.

The criteria of success are ambiguous. Staff occupies a powerful position at the schools. A student will naturally look to the staff for some indication as to whether he is doing a "good" course. And staff freely gives feedback to a student about his performance and attitude. What happens is that staff, formally and informally, decides whether a student passes the course in terms of the more important and subtle criteria such as attitude.

162 A. Certain qualities of the Outward Bound experience particularly encourage "juvenile delinquents" to change.

At Outward Bound there are opportunities which are specially important to delinquents but usually unavailable to them, i.e., opportunities for concrete impressive accomplishments, "real" excitement, and "real" challenge. To have in fact climbed up the rock face gives the delinquent a sense of concrete accomplishment.

163 Perhaps the most difficult experience for the delinquents is the solo. Their dependence on companionship, to be around their buddies, seems to be particularly intense. The solo challenges this dependence on companionship and a supply of food. Food deprivation can become extremely difficult for them. The need to obey safety rules challenges the delinquents' image of rules (and laws) as worthless. When he sees that the rule protects his life, it becomes valued. Finally, being in the field makes it hard for the delinquent to "con" his way through the program.

164 They can be unusually unprepared for Outward Bound. Many of the delinquents are physically "out of shape." This makes it much harder to be involved in the program, to participate in the physically demanding tasks. Many cannot swim. This means they must learn how to swim, as well as develop swimming endurance and skills. Very few of the delinquents have any wilderness experience.

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165 Moreover, there are other more specific issues. For example, the pledge not to smoke is particularly hard for many of the delinquents. Unlike many of the other students, most delinquents are already heavy smokers.

The discrepancy between Outward Bound and the delinquents' home situation is unusually large.

168/
169 We feel enthusiastic about Outward Bound's potential and capacity to educate for personal growth. We feel, however, that this enthusiasm should be coupled with several recommendations. Foremost is that Outward Bound continue to engage in critical self-examination, expressing the results of this examination in modifications of its approach and program. The mobile courses and adult workshops are exciting modifications. This report, and the research project of which it is a part, are in the tradition of self-examination. // There should be further articulation of the Outward Bound methods and principles of education. As the demand for new types of Outward Bound programs continue there must be some guidelines for developing these programs. What educational principles of Outward Bound must be retained in any modification of the standard program? How does one move Outward Bound from the wilderness retreat to the urban environment? Must sections of the typical Outward Bound program be transplanted to the city? What are some ways of engendering self-confrontation in the classroom? What kinds of persons are especially able to learn and grow in an Outward Bound environment? What kinds of persons may not find Outward Bound a particularly educating experience? A second important area involves what a student does after his Outward Bound course. Procedures are needed for maintaining and developing some of the changes begun during the course. Finally, there is the problem of maintaining staff quality. With the increasing popularity of Outward Bound and Outward Bound-type programs, the need for accurate staff selection and thorough staff training becomes acute. How can staff be recruited in large numbers when the requirements for the job are so demanding? Outward Bound's effectiveness and future development depends on how it deals with such issues.

Francis J. Kelly and Daniel J. Baer,
"Physical Challenge as a Treatment for Delinquency." Crime and Delinquency (October 1971), 437-445.

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438 Since 1964 the Massachusetts Division of Youth Service and Outward Bound Schools, Inc., have collaborated in an effort to reduce recidivism in adjudicated adolescent delinquents. In the summers of 1964 and 1965, delinquent boys from the Division of Youth Service attended Outward Bound schools in Colorado, Minnesota, and Maine. Since these boys had a relatively low recidivism rate after returning from the program, further research seemed appropriate. A demonstration project was designed to systematically examine the effect of Outward Bound on adolescent delinquents. Its purpose was to determine whether Outward Bound was more effective in reducing recidivism in adjudicated delinquent adolescent boys than current correctional practice. Also, the Study examined the relative effectiveness of the different Outward Bound schools to observe which elements in Outward Bound are the most useful change agents. Effectiveness was measured by comparing recidivism rates in two matched groups of adolescent delinquent boys. One group attended Outward Bound, while the other was handled in a routine manner by juvenile correctional authorities. Recidivism, here defined as a return to a juvenile institution or commitment to an adult institution for a new offense within one year after parole, was determined from a review of the Division of Youth Service files and those of the Massachusetts Commission on Probation, where all juvenile and adult court appearances in Massachusetts are recorded.

The Colorado Outward Bound School is located on the western slopes of the Rocky Mountains at an altitude of 8,800 feet. The course involves mountain walking, high altitude camping, rock climbing, and rappelling (descending a sheer cliff by means of two ropes wrapped around the body).

The Minnesota Outward Bound School is located in the Superior National Forest near Ely, Minn., on the edge of the Superior-Quetico Wilderness. Participants are trained at the main camp for twelve days and then leave on a two-week, 200-mile canoe expedition.

439 The Hurricane Island Outward Bound School is located ten miles off the coast of Maine at the entrance of Penobscot Bay. More than half the program involves training in seamanship and navigation.

The three participating institutions of the Division of Youth Services were the Reception Center for Boys, which is the receiving and diagnostic unit; the Lyman School for Boys; and the Industrial School for Boys. Lyman and ISB are the training school facilities in Massachusetts to which adolescent male delinquents are assigned.

The subjects for this study were 120 adolescent delinquents. Only boys who were 15½ to 17 years of age, in good health and without any severe physical

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439 disability or severe psychopathology, and who had a minimum IQ of 75 and no history of violent assaultive or sexual offenses were eligible for selection. Eligibility also depended on a willingness to participate if selected.

Sixty subjects from the Reception Center and sixty from the Lyman School for Boys and the Industrial School for Boys were selected. The experimental group, consisting of thirty boys from the Reception Center and thirty boys from the two institutions, attended Outward Bound. The remaining sixty subjects, identified as the comparison group, were handled in a routine manner, some being institutionalized and some immediately paroled.

The experimental and comparison groups were matched on the basis of the following variables: age at time of selection for the study, IQ, race, religion, offense for which committed, area of residence, and number of prior commitments to the Division of Youth Service. With respect to these variables, the two groups corresponded not only to each other but also to the contemporaneous population of adolescent males in the custody of the Division of Youth Service.

Three psychologists served as participant observers. One observer attended at least one course at each of the three Outward Bound schools. The observer's function was to participate in and observe the program and to record his impressions of the course and its impact on the participants.

440 Table 1 summarizes the incidence of recidivism in the experimental and comparison groups. The 20 per cent recidivism rate of the experimental group is half that of the expected rate (40 per cent) for boys of this age committed to the Division of Youth Service. On the other hand, the 42 per cent recidivism found in the comparison group is consistent with the base expectancy rate. On a chi-square test of independence, the significant result ($x^2 = 5.80$, $p < .01$, one-tail hypothesis) supports the expectation that Outward Bound is more effective in reducing recidivism in adolescent delinquent boys than routine management in public institutions.

The participant observers report that the programs at the three Outward Bound schools differ in many respects. The Colorado and Hurricane Island schools emphasize severe physical challenge, felt danger, and high excitement. On the other hand, these programs do not attempt to meet the needs of individual participants but require all boys to adapt to the standards of these schools. Another important characteristic of these schools is that they make little effort to interpret verbally the meaning of the experience to the participants. However, the Minnesota school, while stressing physical challenge, has a relatively low objective danger and excitement level. This program emphasizes concern for interpersonal relationships and stresses reflection and development of a spiritual attitude.

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441/442 In Table 3 it may be seen that the mean age at first court appearance for the recidivists was significantly younger ($t = 3.88$, $p < .01$) than for the nonrecidivists. Also, the mean age for first commitment for the recidivists was significantly younger ($t = 5.20$, $p < .001$) than for the nonrecidivists. However, no such difference was found within the comparison group. This suggests that Outward Bound may have a greater impact on the delinquent whose first course appearance occurs following the onset of adolescence. Many writers have commented on the employment of delinquency as a masculine protest and as a device to assert independence. Perhaps the severe physical challenge of Outward Bound provides an opportunity to resolve this identity crisis.

443 The incidence of recidivism and type of offense for experimental and comparison groups is summarized in Table 5. The most dramatic contrast between the experimental and comparison groups is found in the stubborn-runaway category. Whereas six of the fifteen (40 per cent) experimental group subjects recidivated, ten of the twelve (83 per cent) in the comparison group were returned. This significant difference ($x^2 = 5.19$, $p < .01$) suggests that Outward Bound may have a greater influence on those subjects whose delinquency is a direct response to home conflict than does the traditional training school.

A. Donn Kesselheim,
"A Rationale for Outdoor Activity as Experiential Education: The Reason for Freezin'." Paper presented to the Conference on Outdoor Pursuits in Higher Education at Appalachian State University, Boone, North Carolina, February 11, 1974.

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2 The paper which follows represents a summary account of an effort to think through a systematic rationale for such a learning mode. By and large, it deals with outdoor education in terms of "what is," rather than in terms of "what might be" or "what should be." What I wish to describe with some care here presents that which is current practice already in a good many places. It is not contingent upon some further developments which have yet to happen.

3 The common elements in the type of experience I wish to discuss are:
(a) environmental contrast;
(b) physical activity;
(c) the intentional use of stress;
(d) a small group context; and
(e) the employment of newly acquired knowledge and skills.
These elements require some explanation:

Environmental contrast - Typically, such contrast is obtained by shifting participants to a wilderness setting, on the assumption that such an environment presents a sharp change for most people. (Some experimentation has also been carried on in an inner city setting, with mixed results.)

Physical activity - The activities used tend to be complex, and to extend over a substantial period of time. Examples are: hiking, canoeing, technical rock climbing and rafting.

3/4 Stress - It is assumed that stress used in a controlled manner can have a high utility value for educational purposes. It is important, of course, that exacting safety standards be observed. It is also important that the stress be an intrinsic part of the situation, rather than appearing to be contrived or // synthetic. Stress resulting from being out in rough weather is an example of stress of the right kind.

4 Small group context - Success for the experience is defined in terms of the individual. A task is not completed until every member of the group has contributed to its completion. A person does not "make it" in a solo effort, but rather as a contributor to a team. The aim is to stress collaboration rather than competition. The assumption is that most of us are already well schooled in the virtues of competitive effort, but that we are relatively unskilled in cooperation and uninformed about inter-dependence.

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New Knowledge and skills - The factor which is underscored here is newness. The optimum case would be to place the group in a situation wholly unfamiliar to all of its members (e.g., landlubbers in a pulling boat), and requiring skills and information not readily at hand.

5 Most basic of all the purposes included here is that of enhancing self-concept. So central is this need that I would include it among the three or four most vital aims of all education.

Self-esteem derives, of course, from understanding of self. Consequently, self-knowledge becomes for me the most general aim sought through outdoor learning.

6 In the domain of attitudes, I select two areas about which orientation shall be provided. One area is that of aesthetic appreciation; the other is that of environmental awareness.

By environmental awareness, I mean the realization that it is never possible to do just one thing. It is the difference between the linear, incremental thinking of Newton, and the systemically connected thinking of Darwin.

In the domain of knowledge, I also choose to emphasize an understanding of only two areas. The first is that of leadership and followership; the second has to do with the use of authority and the nature of authority transactions.

7 The final end sought is internalization. Insight, comprehension, awareness — all are sterile if they produce no influence upon behavior.

In summary, then, the goals I have chosen for outdoor learning are the following:

A. Enhancing self-concept
B. Understanding the self, with special emphasis upon identifying one's strengths
C. In the domain of attitudes, a re-orientation toward
    1. aesthetic appreciation
    2. environmental awareness
D. In the domain of knowledge, an understanding of
    1. leadership and followership
    2. the use of authority
E. Internalization

11 There is one particular area of transfer which is of special interest. It has to do with the body as an aspect of self, on the one hand, and the total self, on the other. To a remarkable degree, it appears to me to be true that what one thinks and feels about one's entire self is greatly influenced by what one thinks and feels about one's body. There is a small

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but growing body of research which supports this point of view. If this is the case, one obvious and very direct strategy for strengthening self-concept is to enable people to have success experiences with their bodies.

A. Donn Kesselheim and John Douglas,
"Use of Outward Bound as a Training Component for Administrators:
Summary Report of a Mobile Seminar." 1972. Unpublished paper,
26 pages and appendices.

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1 The material which follows constitutes a summary report of a mobile Seminar which was staffed and run by the Hurricane Island Outward Bound School, located in Penobscot Bay about 10 miles off Rockland, Maine. Sponsored by the Center for Educational Leadership in Newton, Massachusetts, it took place May 21-26, 1972. The purpose of the Seminar was to give members of a seven-university consortium an opportunity to consider incorporation of an Outward Bound course as a component within training programs for educational administrators.

9 ....because the actual membership of the Seminar differed sharply from the target population at which recruitment had been aimed, it was clear from the outset that the likelihood of any new impetus toward experimentation with Outward Bound was substantially lessened. Only two or three of the participants were in a position to take *direct* action leading toward such experimentation. At the same time, it is true that graduate students (-- particularly those at UMass --) can exercise substantial influence in bringing out program change, if they choose to do so.

15 (a) Adapting the standard course
(b) Following up the initial experience
(c) Solving the economic riddle

First, there is a contradiction built into the very idea of *adapting* the standard Outward Bound for purposes of leadership training. What is at issue here is the pedagogy of experiential education, which by definition is learning from experience. A great many O.B. instructors are firmly convinced that *any* effort to mediate or interpret the experience is a mistake.

16 At the same time, however, I must also acknowledge that I am most unconfortable with the assumption -- conveyed by the *practice* of the Outward Bound schools in the U.S., although not by the rhetoric -- that one can leave the issue of transfer largely up to chance.

I would advocate, therefore, a major effort at staff training for all personnel involved in the operation of an Outward Bound program, when it is being adapted for people in education. The two aspects of a staff training program upon which I would lay major stress are:

(a) having participants define goals for themselves (however modest), and check periodically upon their own progress toward attainment of these goals;

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(b) having staff so well attuned to the stages through which an individual passes, as he encounters the O.B. experience, that they can intentionally bring these stages into clearer focus and capitalize upon them.

22 There were pre-course doubts as to whether five days would be a long enough time to allow people to capture the flavor of a twenty-six day OUTWARD BOUND course. Structurally, the design of the course proved to be satisfactory. The watch officers outlined a schedule that included five days of sailing and/or rowing, a twenty-four hour solo, one half day of rock climbing and rappelling on four different climbs, and a five-day expedition which enabled the participants to completely involve themselves in a wilderness setting. Included, along with the schedule of physical activities, were morning readings and discussions examining the concept of authority.

A series of questionnaires or "benchmarks" were distributed at three separate times during the seminar in order to collect responses as the participants progressed through the program. One final benchmark was distributed at the end of the seminar, and participants were asked to respond within four or five hours. The information provided pre- and post-course impressions as well as feelings during the seminar.

Sharon Margaret Koepke,
The Effects of Outward Bound Participation Upon Anxiety and Self Concept. 1973. Unpublished thesis, The Pennsylvania State University.

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3 One example of a voluntarily pursued stressful experience is found in the Outward Bound program. An Outward Bound course consists of three weeks of vigorous backpacking, sailing, or canoeing, and includes rock climbing, rappelling, and a solo experience; both psychological and physiological stresses are therefore inherent in the course structure. The stressful nature of the course may invoke anxiety; confronting these stresses and coping with that anxiety may influence one's perception of one's self. Indeed, Bernstein (1972) recognized that a wilderness program such as Outward Bound could provide a behavior setting conducive to improved self-functioning; such a program elicits "coping" rather than "defensive" behavior and provides positive reinforcement in mastering challenges.

4 The purpose of this study was to determine if participation in a physically and psychologically stressful experience had any effect upon anxiety and self concept; specifically, this study examined the effects of the Outward Bound experience upon the anxiety levels and self concepts of male and female participants.

4/5 The hypotheses tested in this study related to the effects of Outward Bound participation: Does the Outward Bound experience alter the self concepts and anxiety levels of participants? The specific hypotheses under investigation pertained to male and female participation, self concept, and anxiety. It was hypothesized that:

1. The effects of the Outward Bound experience upon self concept and anxiety would be the same for male and female participants.

2. The effects of the Outward Bound experience upon self concept would include two aspects: (a) real self concept would be altered following participation; and (b) the discrepancy between real and ideal self concepts would change following participation. //

3. The effects of the Outward Bound experience upon anxiety would include two aspects: (a) state anxiety would change following participation; and (b) state and trait anxieties would be related to real self concept.

5 This study included 33 male and 11 female participants in course C-104, conducted by the Colorado Outward Bound School, May 7-May 29, 1973. The psychological and physical stresses involved in this study were those stresses inherent in the Outward Bound course; no attempt was made to modify this program for the purposes of this study.

The measures of self concept and anxiety were delimited to specific testing instruments. Twenty-three scales of the Gough Adjective Check List

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were used to delineate both real and ideal self concept. The state and trait scales of the State-Trait Anxiety Inventory were used to determine anxiety levels.

6 One limitation of the study was the timing of the selected course. As the course began before many schools were dismissed for the summer, certain high school and college students were eliminated from inclusion as subjects.

A second limitation was the variety in ages, personalities, and backgrounds of the subjects involved in this study.

A third limitation was the differences in instruction due to the assignment of course participants to small groups.

Finally, this study was limited by test administration procedures: persons other than the experimenter actually administered the tests.

44/ 45 Self concept. The instrument chosen to measure self concept was the Adjective Check List (ACL) developed by Gough and Heilburn in the early 1960's. This list of 300 adjectives may be evaluated through twenty-four experimental scales. A subject may check as many or as few adjectives as he wishes; scoring is adjusted to the total number checked. Among the major considerations in the selection // of this instrument were its brevity and ease of administration. In addition, the versatility of the ACL allows for the measurement of both real and ideal self concepts. The scales of particular interest to this study were: number of adjectives checked, defensiveness, number of favorable adjectives checked, number of unfavorable adjectives checked, self-confidence, self-control, liability, personal adjustment, achievement, dominance, endurance, order, intraception, nurturance, affiliation, heterosexuality, exhibition, autonomy, aggression, change, succorance, abasement and deference...

45 Reliability of the ACL was tested by the authors through the test-retest of 100 men with a six month interval. Test-retest reliability phi coefficients were found to range from +.01—+.86 with a mean of +.54 and a standard deviation of .19 (Gough 1965). Although these reliability coefficients are not high, the low reliability may reflect particular personological dispositions at the time of testing.

46 Anxiety. In the late 1960's, Spielberger, Gorsuch, and Lushene developed the State-Trait Anxiety Inventory (STAI), a short test consisting of two sections of twenty questions each. One set of questions is directed to the measure of state anxiety; the second set is directed towards trait anxiety. Of major consideration in the selection of this instrument was its brevity. A second consideration was the dual measurement involved in the instrument: both situation specific state anxiety and the more generalized trait anxiety may be determined by test results.

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48/ 49 Because of the ordinal nature of the measurements, data were analyzed using non-parametric statistical techniques. The Wilcoxon Matched-Pairs Signed-Ranks test was used to determine the direction and magnitude of differences between samples involving the same individual (Popham 1967). This test was also used to determine significant variations between the two difference scores arising from two related pairs (Siegel 1956). The Mann-Whitney U test was used for independent samples to determine whether or not the unmatched pairs belong to the same population (Siegel 1956). This test was also used to compare the two difference scores of two unrelated pairs. // The degree of relationship between selected ordinally measured variables was determined by the Spearman Rank Order Correlation Coefficient test.

51/ 52 Differences between pre- and posttest real self concepts. Following the Outward Bound course participants ascribed significantly fewer unfavorable adjectives to themselves and found themselves less likely either to solicit sympathy or emotional support from others // (succorance) or to express feelings of inferiority through self-criticism (abasement). In addition the conclusion of the course brought a significant increase in the number of favorable adjectives checked as well as significantly higher perceptions of defensiveness, self-confidence, self-control, personal adjustment, achievement, dominance, endurance, order, intraception, nurturance, affiliation, and heterosexuality.

52 The hypothesis that theorized there would be a change in real self concept was supported by these findings. Since significant differences were found in 16 of the 23 ACL scales, it was surmised that the perceptions of self before Outward Bound participation differed from these perceptions after participation.

An examination of the individual scale differences revealed that the changes were generally towards what would be considered a more positive real self concept.

54 Differences between male and female real self concepts on pre- and posttests. Both before and after the course, males checked a significantly higher total number of adjectives than females in addition to obtaining higher achievement scores on both tests. Pre-test results also showed males to be higher than females on the order ACL scale. Both preceding and following the experience, females appeared to seek novelty of experience and avoid routine (change) more than their male counterparts. See Table 2 for a statistical presentation of these data.

59 Differences between male and female ideal self concepts on pre- and posttests. The comparison of male and female ideal self concepts revealed that both before and after the course males checked more adjectives, checked more unfavorable adjectives, and scored higher in succorance and deference; males also scored higher in abasement during pretest measurements. Both preceding and following the experience, females ascribed more favorable adjectives to themselves and were more self-controlled, autonomous, and changeable; pretest results also found females to score higher in defensiveness, self-confidence, personal adjustment, and dominance than the male participants.

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59/61 Although there were no significant differences within the total group for pretest and posttest ideal self concepts, there did appear to be variations in ideal self perceptions between the sexes. The differences between male and female ideal self concepts decreased slightly after Outward Bound participation. However, after this experience males remained higher than females on number of unfavorable adjectives, succorance, and deference; lower male scores persisted for number of favorable adjectives, self-control, autonomy, and change. // Relatively little difference was revealed between male and female real self concepts. The general direction of the male ideal self concept placed it on a less positive plane when compared to the female ideal. This may indicate that males set ideals that were more attainable in relation to real self perceptions.

61 The differences between male and female ideal self concepts did not support the hypothesis that similar concepts would be found. This variation could perhaps be attributed to the nature of Outward Bound participants. According to traditional societal conceptions, males are expected to efficiently cope with physical and psychological stresses. Thus the Outward Bound experience may present no unusual expectations for male participants. Females have not traditionally been credited with such high tolerance for physical and psychological stress. The female participant therefore may have set exceptionally high ideals, and may differ in this respect from the typical female that does not seek experiences such as Outward Bound. Although there were differences between male and female ideal self concepts, it must be remembered that there were also many similarities between these two groups.

62 The comparison of real and ideal self concepts of participants prior to the Outward Bound experience demonstrated that their ideal self scored higher in defensiveness and number of favorable adjectives checked, was more self-confident, more self-controlled, and showed more personal adjustment, achievement, dominance, endurance, order, intraception, nurturance, affiliation, and exhibition. This ideal self would however be characterized by fewer unfavorable adjectives and less autonomy, aggression, change, succorance, and abasement.

At the conclusion of the course, fewer differences between real and ideal self concept were noted: participants would ideally liked to have shown more self-control, personal adjustment, achievement, dominance, endurance, and order; they ideally desired to be characterized by fewer unfavorable adjectives and less succorance.

64 Comparison of pre- and posttest real-ideal discrepancies. The discrepancies between real and ideal self concepts were found to be significantly smaller following the course for the following ACL scales: defensiveness, number of favorable adjectives checked, number of unfavorable adjectives checked, self-confidence, personal adjustment, dominance, intraception, nurturance, affiliation, aggression, succorance, and abasement.

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66 The results of this study supported the hypothesis that there would be changes in the discrepancies between real and ideal selves following Outward Bound participation. This hypothesis appeared to be tenable since 16 of the 23 ACL scales exhibited significantly different real-ideal discrepancies following the course.

Differences between male and female real-ideal discrepancies on pre- and posttests. The comparison of male and female real-ideal discrepancies before the Outward Bound course indicated that males had smaller discrepancies for defensiveness, number of favorable adjectives checked, number of unfavorable adjectives checked, personal adjustment, achievement, dominance, endurance, order, affiliation, succorance, and abasement. At the conclusion of the course, males revealed significantly smaller real-ideal discrepancies for defensiveness, number of favorable adjectives checked, number of unfavorable adjectives checked, achievement, dominance, exhibition, succorance, and abasement.

68 These results tend to refute the hypothesis that male and female scores would not differ. It appeared from these results that the ideal self more closely approximated the real self for male Outward Bound participants; this trend was found both in pretest and posttest data. The smaller real-ideal discrepancies that males revealed could indicate that they were better able to set realistic goals than their female counterparts. It should be noted, however, that fewer male-female variations were manifested at the conclusion of the course. In many respects, the male and female real-ideal discrepancies were more similar than dissimilar.

Differences between pre- and posttest state and trait anxieties. Both state and trait anxiety scales were found to be significantly higher at the beginning of the Outward Bound experience. See Table 8 for the statistical presentation of these data.

69 These results support the hypothesis that there would be significant differences in state anxiety before and after participation. Significant trait anxiety fluctuations were not expected. By definition, trait anxiety refers to anxiety proneness, a relatively stable index (Spielberger 1970). The results of this study would tend to dispute this definition since trait anxiety was inflated before course participation as compared to test results following the experience.

70 Differences between male and female state and trait anxieties on pre- and posttests. No significant differences were found between males and females on either pretest or posttest state and trait anxieties.

72 Relationships between real self concept and state and trait anxieties on pre- and posttests. For real self concept and state anxiety, comparisons prior to the course revealed negative correlations between pretest state anxiety and the personal adjustment and intraception scales; positive correlations were found for succorance and abasement. Comparisons following the course between real self concept and state anxiety indicated negative correlations were found for a number of unfavorable adjectives checked, succorance, and abasement.

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73 These results partially support the hypothesis that anxiety and self concept would correlate significantly. Fewer relationships were found between state anxiety and real self concept than between trait anxiety and real self perceptions.

75 Relationships between ideal self concept and state and trait anxieties on pre- and posttests. Only a few relationships were found between anxiety measures and ideal self concept: pretest trait anxiety positively correlated with exhibition; posttest state anxiety positively correlated with succorance; and posttest trait anxiety positively correlated with exhibition and negatively correlated with deference.

There did not appear to be any significant relationship between ideal self concept and anxiety in general.

79-82 See extract which follows.

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Summary of Findings

The analysis of the data obtained from test administrations at the beginning and at the conclusion of the Outward Bound course revealed the following findings:

1. Following the Outward Bound course participants ascribed significantly fewer unfavorable adjectives to their real selves and found themselves less likely either to solicit sympathy from others (succorance) or to express feelings of inferiority through self-criticism (abasement). In addition the conclusion of the course brought a significant increase in the number of favorable adjectives checked, defensiveness, self-confidence, self-control, personal adjustment, achievement, dominance, endurance, order, intraception, nurturance, affiliation and heterosexuality.

2. On both the pre- and postreal self concept tests, males checked a significantly higher total number of adjectives than females in addition to obtaining higher achievement scores on both tests. Pretest results also showed males to be significantly higher than females in order. On both pre- and posttests, females scored higher in change.

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3. No significant differences were found between pre- and post-ideal self concepts.

4. The comparison of male and female ideal self concepts revealed that on both pretests and posttests males checked more adjectives, checked more unfavorable adjectives, and scored higher in succorance and deference; males also scored higher in abasement during pretest measurements. Both before and after the course, females ascribed more favorable adjectives to themselves and were more self-controlled, autonomous, and changable; pretest results also found females to score higher in defensiveness, self-confidence, personal adjustment, and dominance than the male participants.

5. The comparison of real and ideal self concepts on the pretest revealed higher ideal self scores in defensiveness, number of favorable adjectives checked, self-confidence, self-control, personal adjustment, achievement, dominance, endurance, order, intraception, nurturance, affiliation, and exhibition. The ideal self scored lower than the real self in number of unfavorable adjectives checked, autonomy, aggression, change, succorance, and abasement. The comparison of real and ideal self concepts on the posttest indicated higher ideal self scores for self-control, personal adjustment, achievement, dominance, endurance, and order; the ideal self scored lower in number of unfavorable adjectives checked and succorance.

6. The discrepancies between real and ideal self concepts were found to be significantly smaller on the posttest for defensiveness, number of favorable adjectives checked, number of unfavorable adjectives checked, self-confidence, personal adjustment, dominance.

intraception, nurturance, affiliation, aggression, succorance, and abasement.

7. The comparison of male and female real-ideal discrepancies on the pretest indicated that males had smaller discrepancies for defensiveness, number of favorable adjectives checked, number of unfavorable adjectives checked, personal adjustment, achievement, dominance, endurance, order, affiliation, succorance, and abasement. On the posttest, males revealed significantly smaller real-ideal discrepancies for defensiveness, number of favorable adjectives checked, number of unfavorable adjectives checked, achievement, dominance, exhibition, succorance, and abasement.

8. Both state and trait anxiety scores were significantly higher on the pretest than on the posttest.

9. No significant differences were found between males and females on either pretest or posttest state and trait anxiety.

10. For real self concept and state anxiety, pretest comparison revealed negative correlations between pretest state anxiety and the personal adjustment and intraception scales; positive correlations were found for succorance and abasement. Posttest comparisons between real self concept and state anxiety indicated negative correlations with self-confidence, achievement, and dominance; positive correlations were found for number of unfavorable adjectives checked, succorance, and abasement. For trait anxiety and real self concept comparisons, negative correlations were found on both pretest and posttest for the scales of defensiveness, personal adjustment, achievement, dominance, endurance, order, and intraception; common pretest and posttest positive correlations were found for

number of unfavorable adjectives checked, succorance, and abasement. In addition, the posttest trait anxiety was negatively correlated with number of favorable adjectives checked, self-confidence, nurturance, and affiliation; it was positively correlated with deference as well.

11. The correlation of ideal self concept with state and trait anxiety measures revealed the following relationships: pretest trait anxiety was positively correlated with exhibition; posttest state anxiety was positively correlated with succorance; and posttest trait anxiety was positively related to exhibition and negatively related to deference.

James G. Leaf,
"Staff Report: Hurricane Island Outward Bound School - Lyman School for Boys Overlanders Project - January-April 1968." Unpublished.

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1 The Overlanders Program of 1968 developed from the initial commitment of John D. Coughlin and the Massachusetts Division of Youth Services in 1964 to send delinquent boys to the Outward Bound Schools. In subsequent years the division increased the numbers of those attending, and eventually in the summer of 1966 collaborated with the Outward Bound Schools to design a demonstration study of 120 adolescent, delinquent boys, and submit the proposal to the Office of Juvenile Delinquency for a one year funding. The funds were acquired, the boys sent off to Outward Bound Schools and the Project report completed and printed in May, 1967.

The results of the study were somewhat encouraging in that there was a reduced rate of recidivism in the group attending Outward Bound, relative to the control group remaining in institutions at that time. There was also some evidence to support the hypotheses that Outward Bound improved self concept in delinquents.

As a result of these findings and of personal reactions to the impact made on individual boys, the Massachusetts Division of Youth Service was encouraged to experiment by introducing an Outward Bound type program directly into one of its institutions, the Lyman School for Boys.

3 The basic idea of the program was to alternate 90 minute action oriented periods with academic ones so that the students would not become exhausted or bored. There were to be almost weekly expeditions and evenings were to feature guest speakers, journal writing, and recreation.

There is no question that we made several large false assumptions in our planning. We decided that the pace of an Outward Bound School would be too demanding for the Lyman Group, and that longer, more leisurely periods with breaks between activities would be more effective. The opposite proved true. The boys' attention spans were far shorter than those of regular Outward Bound students, and they were more cooperative and involved when presented with a program of variety and quickly changing activities. Midway through the course we shortened periods to 45 minutes and made an effort to increase both variety and action in the curriculum.

4 Another mistake was in our over estimating their academic receptivity. The mere mention of school, or the sight of a book, would instantly trigger some into an attitude of head on desk, and mind switched off. The great diversity of abilities also demanded a revised approach.

A third false assumption in program design was that we thought we would find the necessary spare time to structure classes and have a regular series of guest speakers and group outings, as important dimensions of the students' education. The minute to minute nature of the program and the understaffing seriously harmed the academic activities.

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5 In recruiting the students Leaf gave a thirty minute talk about the program, painting it in dark and forbidding colors. He promised that it was going to be difficult, include school, and in general not an easy way out. Once a lad entered the program he was not going to be allowed to quit easily. Despite these warnings, almost the whole school volunteered to the program. The motives were many; to get in shape, to break the boredom, to get out on parole, to go on trips, etc. Many boys later said they didn't know why they joined. The twenty four boys who were accepted for the program were selected by the counseling staff.

6 There was a general good feeling of cooperation among all hands as the program opened. The project name "Overlanders" was invented by Outward Bound staff and okayed by Mr. Ordway, et al.

7 Each morning began with the traditional Outward Bound run and dip (a shower or dunk in the pool) at 0600, regardless of weather.

The lights out in the evening was at a loose 2130, and some subdued talking was permitted, and their bedroom doors were allowed to be closed.

The television was declared off limits and was turned on only for certain times on Sundays.

At no times were the boys locked into their rooms or the cottage, and generally, any boy could have run if he so chose. No one ever ran from the cottage.

13 Reverend Bob Brown organized lessons in driving the large dozer down at the school farm. He and his close friend Harry Silvester, had previously given the boys some instruction in auto mechanics and his explanations of bulldozer engines seemed to hold the boys' interest. When informed that they were each to drive the monstrous machine, most boys were terrified. Nonetheless Reverend Brown was adamant and all had a go. As with the rope handling, they performed well and even reached the stage at which they held patrol slalom competitions.

Significantly, Reverend Brown remarked that he had never before seen a group of Lyman boys combine confidence, attention, and skill in such an activity. In conjunction with other performances in that last month, this observation encouraged us to believe that the boys' self confidence was increasing and making them more receptive to education.

14 The Community Service activities at Lyman were several and fortunately very meaningful during the program.

Trained to use the fire truck and its equipment, the boys responded well to the emergency calls during the Westboro flooding. They pumped out an endangered local factory and a basement in a private home. They were very proud when an open letter thanking them was published in the Worcester newspaper.

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A second satisfying project was their service effort for the Fish and Game Commission. Both patrols cleared a large picnic area of thick brush and small trees so that others could enjoy the place this summer. They worked well for two and one half days and finished the project. The commission was willing to note their efforts with a formal sign saying "Cleared by the Overlanders I, 1968 - Rogers and Henson Patrols." Several boys expressed desires to take their friends and families to the site this summer to show off the work.

15/16 I. Cottage Duties

Their attitudes towards house duties was most interesting to us as it seemed somewhat unusual. A number of boys wanted specialization of duties as in the other cottages. Often these lads were genuinely happy while sweeping a floor or washing a dish. One reason was that while working they could avoid conflict with the dominant members of the group and fulfill a // useful role within that group. In some cases boys were "house proud" and had spent years helping their working mothers clean up at home.

17 V. Expeditions

Each week of the course, we took the boys out on some kind of an expedition. The demands of the trips progressively increased and the final journey was for a period of eleven days. Throughout the three months these outings provided sustained positive reactions from the boys. In the field they experienced the greatest sense of personal achievement and success. Their behavior on the trips and in the periods directly after their return was at its best.

22 VI. Discipline

The subject of discipline is central to the entire Overlanders project and perhaps the most difficult and significant issue in the total Lyman School experience. It is in this area that the clash of philosophies between Outward Bound and the Lyman School occurred.

23/24 The sort of changes Outward Bound initiated were decidedly radical. Outward Bound with its motto of "to serve, to strive, and not to yield" operates its residential courses on a rather different approach to discipline from that // of Lyman School. Because all students there are on strange ground and placed in situations of mutual interdependence, group pressure is very effective. A fast pace and variety of challenge keeps most off balance. If a boy doesn't learn to read a compass, he gets lost in the fog; or if he doesn't learn how to build a shelter, he gets wet. The punishment is self inflicted and, therefore, usually just and understood.

25 With their new, unearned freedoms, the boys began to test the limits of our permissiveness and patience. It took them little time to discover

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that we had decided not to knock them down. Instead, we punished them through a combination of bluff and long runs, sleeping outside, etc. They were amazed to discover us participating in any and all punishments we gave them. The situation was reasonably tight until Leaf became injured on expedition and was unable to maintain a fully active role as patrol leader. Middleton and Baha were subsequently obliged to shoulder the program alone and the instruction periods had to be handled for a patrol of 24, a situation entirely contrary to any other Outward Bound program.

The two Outward Bound staff became very tired as they were working 18 hours a day every day of the week. As they grew more fatigued the problems increased. Boys became more defiant and mischievous, smoking more flagrantly, and language more foul. However, as happened throughout the course, their behavior alternated in regular cycles. They almost had to be thoroughly bad, before they could be good. Just when the staff was most discouraged, the boys would do something beautifully. We became resigned to high peaks and low valleys.

27 The long standing personal effort and affection Mr. Middleton had shown them, and his obviously sincere alternative, shook everyone. He restated the meaning of the unofficial Overlanders motto, "Liberty is the right to discipline oneself so as not to be disciplined by others"; and its meaning hit home for the first time. One of the responsible boys made a tremendous personal sacrifice for the group and turned himself in. It was not a question of group pressure as he was not even suspect. He simply placed the program above himself and subsequently accepted without rancor the consequence of his actions; expulsion from the program. With Mr. Ordway's support and approval we left the decision of expelling or retaining the thieves to a secret ballot of the Overlanders themselves. They chose to dismiss both by large majorities despite friendships.

From that night on the boys seemed to take a greater pride in their group. They amazed us by self administered discipline with their swearing.

32 IX. Conclusions

In evaluating the Overlanders Program, the entire Outward Bound staff feels that the project was worthwhile for the boys, the Lyman staff and for Outward Bound. We know that we made many mistakes in the areas of staffing, program and discipline and only now possess the awareness and the experience to plan and implement the highly effective and tightly structured program. Yet for all its shortcomings, the Overlanders project had considerable impact on the school. Most heartening is the fact that almost all the Lyman staff who participated in this project have enough interest and belief in the Outward Bound idea to volunteer themselves for our residential instructors courses this summer. This commitment on their part and the greater understanding that will grow out of this Lyman-Hurricane Island interaction will be of tremendous value in any continuation of the Overlanders.

James G. Leaf

We of Outward Bound are excited by the reactions of the boys of Overlanders and hope that our pilot effort will lead to a continuing program this coming fall.

Peter Lev,
"American Indian World View and the Outward Bound Concept: A Comparison." 1968. Unpublished paper.

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2 The American Indian has had a view of reality, or world view, which was in its original formulation rooted in a response to the coercion of nature. Life was seen as ordeal and the posture that the red man assumed was one of being up to those challenges which were over against him... in order to survive. Survival in the unforgiving natural environment was seen as the result of a dynamic harmony within the three-fold nature of the Indian's existence: the personal inner life, which included the door to the spiritual, the natural environment, and the social reality. These were seen as the interrelated forces of the world. A man's life and the life of his people depended on this; that a man be hard on himself and be aggressive against those forces which would dissipate the crucial balance in himself and in the world.

2/3 Recently, there has been in the United States a renewed interest in the sea, the mountains and the wilderness as good schools of character. A sense of values hard won from ordeal is now the goal rather than any direct necessity for overcoming the physical challenge itself. This philosophy is implemented by organizations such // as the Outward Bound Schools which were, "established to speak to the deep concerns and ills of our age," with its "confusion of values, rapid and often chaotic social change, increasing insensitivity and dependency." These schools place young people up against the adversity of the wilderness, emphasizing, as did the Indians, solitude and adventure, not for their own sake but because they demand of individuals their best resources: the "will to prevail" over obstacles and personal fear, a "sense of values to sustain them" and, those "qualities of human responsibility and compassion to sustain each other."

3 The common philosophical ground is this: recognition of the interrelatedness of the forces of the world and of man's responsibility to maintain the balance between these forces.

5 The vision quest was a universal practice among the many Indian nations and, although the particulars varied, it was essentially a vigil in which the individual would ritually prepare himself and go alone with a very few essentials to a mountain top or isolated place and remain several days "lamenting."

8 This same attitude of the interrelatedness of the world is also present in the Indian concept of health; a sphere which well represents the Indian feelings about man in relation to nature. The following statement was made with particular reference to the Navaho.

> ...health is symptomatic of a correct relationship between man and his environment; his supernatural environment, the world

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around him, and his fellow man. Health is associated with good, blessing and beauty and all that is positively valued in life. Illness on the other hand, bears evidence that one has fallen out of this delicate balance.

13 The difficulties which the Indians have had in our modern relativistic world can be traced to such considerations. A good example would be the idea of majority rule, which, "...taken so for granted in Anglo-Saxon governing bodies, was at first a divisive rather than a unifying principle in the Indian groups where action is customarily delayed until all the people are in agreement or at least the dissidents agree to stand aside."

18 The Outward Bound quest is, then, ultimately "inward bound." "Solo, the experience of being three days and three nights alone, without food and the barest minimum of shelter, provides the opportunity" and is the high point of a definite and planned build-up.

19 For the "soloist," like the Indian "lamenter" "...nights alone, without food and with the barest minimum of shelter" become the catalyst for the directing of suffering into the overcoming of suffering.

Darwyn E. Linder and Marie J. Linder,
"Experience and Change: A Psychometric Assessment of the Impact of Outward Bound Courses." 1971. Unpublished paper, mimeographed, 34 pages plus references and tables.

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1 There are, however, a few instances in which an agency or institution is sufficiently clear about the effects it hopes to achieve with persons who experience its program that an assessment of that effectiveness may be attempted. Outward Bound is one such institution.

1/ 2 While the early success of Outward Bound was demonstrated by the increased survival rate of British // naval personnel, the effectiveness of Outward Bound in the United States as a catalyst for personal change and growth in its students has been assessed only by a limited number of studies. The focus of these studies has usually been a special course for an unusual population of students such as inner city youth (Schroder and Lee, 1967) or Dartmouth undergraduates (Nelson, 1970). However, Borstelmann (1969) reports data from a typical summer course at the North Carolina Outward Bound School. The purpose of the study to be reported in this paper was to assess, formally and systematically, the impact of an Outward Bound Experience on the wide variety of students attending courses at the Minnesota Outward Bound School during the summer of 1971.

2/ 3 Katz (1969) has described the goals of Outward Bound as the development of initiative, self-confidence, responsibility, compassion, self-discipline, determination, leadership and awareness. The task, then, was to measure the development of these attributes as a function of an Outward Bound experience. Further, since the schedule of courses included, male, female, coed and educators' courses, another goal was to determine in what ways the impact of Outward Bound differed from one course to another. Some specific comparisons planned at the outset were males from male courses versus males from coed // courses, and females from female courses versus females from coed courses.

4 ...it seemed that since the goals of Outward Bound could be stated in terms of psychological traits or behavior patterns, a test instrument that purported to measure those traits could be used to assess the effects of an Outward Bound course. There is current controversy about the utility of a trait psychology conceptualization of personality and about the generalizability of psychometric measures to other forms of behavior (Mischel, 1968). However, for purposes of the present study it was decided that a person's answers to a series of self-relevant questions could reveal the impact of experience on self concept, if not on additional aspects of behavior.

5 Accordingly, three instruments were selected, the Personality Research Form (Jackson, 1967), Acceptance of Self and Others (Berger, 1952), and the Personal Orientation Scale (Schopler, 1971).

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The Personality Research Form (PRF), is a multi-trait measure developed to measure personality traits "broadly relevant to the functioning of individuals in a wide variety of situations"(Jackson, 1967, p. 4).

This test was selected over others because of its careful constructions and validation and because the traits it purported to measure seemed to correspond closely to the qualities Outward Bound seeks to nurture.

Acceptance of Self and Others (AS-AO) is really two scales, one to measure attitudes toward self and one to measure attitudes toward others.

6 This scale was included in the battery because it provided a direct measure of attitude toward the self, an important target of the Outward Bound experience, and because Shaw and Wright (1967) evaluated it as, "the most carefully developed scale to measure attitude toward self that we found in the literature (p. 433)."

The Personal Orientation Scale (POS) is a 25 item measure developed as an alternative to Rotter's (1966) measure of internal vs. external locus of control.

This test was included because Outward Bound philosophy includes a belief that the course of events can be under the control of the individual, rather than due to chance or fate.

7 The practical problem of maintaining contact with a large group of geographically diffuse subjects during a longitudinal study cannot be solved without extensive funding, currently unavailable.

7/ ...Outward Bound students are self-selected and quite probably differ //
8 from age group norms on almost every dimension. Thus, it was necessary to establish baseline data by testing the students immediately before the course, creating a typical precourse-postcourse evaluation design. Since parallel forms were not available for the AS-AO and POS they were simply repeated at each testing. The PRF was administered in two parallel forms to the students in each course, with order of administration counterbalanced between courses. At each testing, then, students completed one of the parallel forms of the PRF, the AS-AO, and the POS.

9 Unfortunately, the structure of the MOBS course did not allow a similar test session to be scheduled at the end of the course. Rather, a two-hour period was set aside for each brigade during the last two days of the course in which they were to complete the postcourse battery. This testing usually took place in the school dining hall. Attempts were made to standardize testing conditions, but noise, interruptions, cookie breaks and other nonstandard events occurred with some frequency.

10 Postcourse minus Precourse difference scores were calculated for each of the 14 substantive scales of the PRF, and for AS-AO and POS scales. These data are presented in Table 1 as mean change scores for each scale and

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each subgroup of students. The mean change for each scale and subgroup was tested for significance against the null hypothesis that the true mean change was zero using a two-tailed *t*-test.

23 The most consistent finding in the data resulting from this study was that most students in most courses achieved a gain in self acceptance as measured by the AS scale.

26 All-Male and All-Female Courses. There were no consistent reversals in direction of changes that could be considered as indicating differential effects of the two all-male and two all-female courses. Where there were statistically significant changes, the changes varied in a direction independent of the sex of student.

J. Charles Little,
"A Progress Report on the Development of the Outward Bound Phase of the Environmental-Outdoor Education Program Community Unit School District 200, Woodstock, Illinois." Paper presented to the Board of Education, Community Unit School District 200, December 1970. Unpublished, mimeographed, 91 pages.

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1 We must find ways to replace the "Doctrine of Ease" with the "Doctrine of Stress." We are discovering that growth comes only through stress.

Richard A. Lovett,
Outward Bound: A Means of Implementing Guidance Objectives.
1971. Unpublished thesis, University of Toledo.

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1 Although not claimed to be a panacea, I feel that an innovative educational program called Outward Bound has within it the basic structure and opportunities which would allow a school guidance counselor to develop effective counseling relationships with his clients.

I feel that if the Outward Bound program were staffed by specifically trained guidance personnel, even more desired counseling outcomes would occur.

3/4 Ideally the instructor (or perhaps an assistant instructor) could very well be trained in counseling. Each day new experiences are presented which participants must learn to cope with and with a counselor present the // participants would be able to receive immediate counseling, either during the course of events or more logically around the evening campfire where this writer has found from personal experience that people are ready and willing to discuss their concerns.

4 Notice too that the counselor is readily available and even participates in the same activities as his potential clients. He is free of all outside concerns and can devote all of his time to the individuals with whom he is working. By the end of the program the counselor most likely has established the rapport necessary to continue the relationship after return to a common setting (although, not in all cases will they return to the same setting).

7 While the hypothesis is stated in null form, the results will be tabulated in percentages rather than statistically.

Hypothesis

There will be no differences in self reports on a sentence completion questionnaire concerning understanding of self and others between students who have participated in Outward Bound and a matched group of students who have not participated.

8 Chapter III will give the results of a survey given to seventy-eight Woodward High School students, Toledo, Ohio. Thirty-nine of these students, both male and female and in their junior or senior years, were selected because of the participation in one of a variety of Outward Bound programs the previous summer. The second group of thirty-nine juniors and seniors was selected at random, but care was taken to select the same number of male and female students as the first group, as well as the same number of juniors and seniors. Both groups represent a cross section of the population of the school with various racial and ethnic backgrounds and various levels of academic ability. Of the questionnaires distributed, twenty-eight were returned by those who have participated in Outward Bound while twenty-one were returned by those who have not participated.

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14 A third group which has a distorted view of counselors and this helps impair their effectiveness is the teachers. Teachers, too, have antagonistic views toward counselors because they are members of the administrative hierarchy.

19 While these programs under the direct control of the national Outward Bound (located in Reston, Virginia) are indeed significant, an equal significance can be attributed to the over 200 adaptive programs which have begun in various areas of the United States, usually in conjunction with a local school system, juvenile correction agency, or business organization. The national staff, as seen in their Annual Report, 1969, feels this is one of the more important phases of their task, for "Outward Bound's salient goal is clear -- to deeply involve the Outward Bound concept within the educational and environmental systems of this country; to make some form of our program available to any who wish to participate" (Outward Bound, Inc., 1969, p. 1).

23 Although it seems to flow in a very easy and loose manner, an Outward Bound program run by each of the national schools consists of a very carefully planned series of activities designed to fully implement Outward Bound objectives. This series of activities can roughly be divided into: patrol formation, training, expedition, competition, and solo. Each of these activities is designed to foster awareness and concern toward self and others, a goal which very clearly falls in with the goals of counseling.

27 What better place for a counselor than to be alone with a student immediately after this experience (solo) and discuss with him the thoughts and concerns which have developed over this three day period when he has not been able to share them with anyone.

46/47 Conclusions

As a result then of surveying the literature in the counseling and Outward Bound fields and surveying the two groups of students, this writer feels that some conclusions can be drawn:

---- objectives of guidance counseling and Outward Bound are quite similar.

---- counselors have a great deal of difficulty in fulfilling their role objectives in the school setting.

---- the Outward Bound program is structured in such a way that it fosters the fulfillment of counseling objectives. //

---- students who have participated in Outward Bound seem to be more positively aware of self, more confident in decision making, and more confident in interactions with others than those who have not participated in Outward Bound.

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---- students working with guidance counselors in a program based on Outward Bound concepts would seem to be more likely to become fully aware of self and others than are those who participate in a similarly structured program without the presence of guidance counselors.

---- guidance counselors working in a program that promotes the concepts of Outward Bound are more likely to fulfill their true counseling roles and are more likely to foster within students the concepts which guidance counselors desire to promote than they would working in the traditional school setting.

Daniel H. Lowenstein,
Wilderness Adventure Programs: An Activity Profile. The
Pennsylvania State University, November 1975.

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1 I choose to use the term "Wilderness Adventure Program" (WAP) to classify this particular type of wilderness activity. Thus such programs as resident camps, environmental education seminars, nature centers, etc. which might include adventure activities as a relatively small part of their curriculum are not included in this paper. Also, those programs which focus upon one particular adventure activity, such as rock climbing schools, are not considered here, since the goal of these programs is generally to develop competency in particular skills of an activity.

2 In the "Statewide Comprehensive Outdoor Recreation Plan" classification system, WAPs would come under the general heading of "Environmental Related Recreation," including the sub-categories of "water activities" and "outing activities." WAPs emphasizing winter camping would be classified as "winter activities." Since the programs often entail survival skill training, ecology lessons, etc., they would also be included under "Outdoor Education." Finally, the general heading "Creative, Aesthetic, Educational and Cultural Recreation" is applicable here, since the programs are beginning to place more and more emphasis upon activities which develop an understanding of the outdoor environment.

WAPs can be placed in the classes of "III-Trips and Outings," "IV-Outdoor Living," and "V-Outdoor Related Sports" in the Carlson, Deppe, Maclean system for obvious reasons. (3:440-7)

3 It was not until the mid-1960s that WAPs became varied in terms of organizational suppliers. For the most part, any history of WAPs prior to that time is really a history of Outward Bound.

Though WAPs are truly an international phenomenon (programs are located throughout the world), the first programs developed in England. The mentor behind their initial growth was a school headmaster of German descent, Kurt Hahn. In 1933 he arrived in England, since as a Jew and an open opponent of Hitler, Germany was no longer a suitable home. He had a number of friends in Britain who were either acquaintances in the teaching profession or parents of some of his previous pupils, and were able to assist him in continuing his educational pursuits. Hahn had a number of educational theories which he was convinced were necessary to apply, at a time when the European political systems were in such a state of turmoil.

4 Another of Hahn's strong beliefs was inspired by writer Henry James, in an essay entitled "The Moral Equivalent of War."

6 In 1950, the second Outward Bound school was founded at Eskdale in the Cumberland Mountains, with an expressed emphasis on personal

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achievement rather than competition. The program included "running, jumping, the javelin...five mile walks, rope work, pioneering and tree felling." (54:474) The school was continuously on call for mountain rescue, and allowed a greater amount of free time than the previous programs. Moray Sea School in Scotland, which was founded in 1949, independent from the Outward Bound Trust prior to 1952, centered their activities on the sea expeditions with the sixty ton schooner 'Prince Louis.' It was here that the idea of the twelve-man 'watch' developed; referring to teams of boys who lived and worked together throughout the program.

The 1950s saw the expansion of the Outward Bound program to other places in England, Ullswater in 1956 and Devon in 1959; and to other countries as well. In 1959 a school opened in Nigeria, and later in Germany, Kenya, Malaysia and Australia.

7 It was not until 1962 that Outward Bound reached America, when a school was inaugurated in Colorado. Some Englanders believed that the need for Outward Bound in the U.S. paralleled the need in Britain.

The Colorado Outward Bound programs were very physically oriented, including running, hiking and a six mile marathon; thus Hahn's concepts of character training through challenge were certainly present. However, there appears to have also been a strong feeling that the wilderness setting had much to offer as an experience in itself.

This is one of the first instances of incorporating the appreciation of the environment as a facet of the Outward Bound program, a trend which has become quite marked in many WAPs today.

8 A number of other WAPs have come into existence in the past few years, but all appear to be more limited in their scope of operations and access to the public when compared to Outward Bound and NOLS.

13 It is important to keep in mind that this is a somewhat gross generalization of the 'actions' of WAPs. Sometimes the sequence of the phases as presented are interchanged, though in all cases the instruction of skills is the initial phase. There are a few programs which omit the third phase. No considerations have been made here for the actions between phases; let it suffice to say that a certain amount of transportation, debriefing, relaxation and introduction is carried on between phases.

16 With the increased popularity of WAPs, and the large amount of competition for a limited number of positions as instructors, it appears that only those individuals with a high amount of expertise are accepted for teaching positions.

In all the WAPs surveyed, the participant is supplied all food and equipment necessary for the course, except for personal clothing and footwear, and in some cases a sleeping bag.

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Length of Experience. As can be seen from Table II (next page), the length of WAPs vary greatly. The most common time span is a 'standard' three to five-week program. Becoming more popular are the special seven-day course, three-day seminars, and full-semester expanded programs.

20 The latest Outward Bound publication reports that the six U.S. schools are reaching 6,000 yearly, with a total of 35,000 graduates since their first year. The most recent statistics found on all the Outward Bound schools throughout the world was in a May 1967 edition of Harpers Magazine, in which it was reported that total attendance since the first course at Aberdovey stood at 100,000.

Income. Originally, all participants were sponsored by 'parent' organizations, which enabled people from all income levels to attend courses. As mentioned earlier, the U.S. Outward Bound schools have tried to maintain a policy of 50% scholarship mix for those who are in need of assistance.

21 Age. The original Outward Bound schools limited their enrollment to youths from 16 to 21 years old. This was later extended to include 12 to 15 year olds accommodated in 'junior' courses. It appears that U.S. placed no upper age limits right from the beginning.

Gender. Up until 1951, when the first Outward Bound course opened to girls, all participants were males. Since then, more and more women have attended courses. Almost all WAPs today have no restrictions as to gender, though the greater percentage of participants continue to be of the opposite sex.

22 The Outward Bound schools, through their scholarship programs and the feeling that a varied group mix added to a course, seem to reach various minority groups, though it was not found to what extent. Programs designed specifically for participants from the inner city have been held.

26 Leisure. The increased amount of leisure time available to individuals in the U.S. has undoubtedly played a significant role in the increased participation in WAPs.

Transportation. Since WAPs are generally located in areas (of the U.S.) classified as resource-based (see Chapter V, "Areas"), transportation has played a key role in their increased popularity.

27 Regardless of the background of non-scholarship participants, the current rise in personal disposable income will make WAPs financially feasible to more and more people, Whether they choose this activity in lieu of less expensive activities is another question.

38 Laws. Though test cases involving 'adventure programs' were not found in the legal literature reviewed, it appears that there are a number

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of laws and court decisions from other areas of legislation which could apply to such programs. The two most prominent concerns are the legal liabilities of WAPs to their participants, and the laws governing the public lands which WAPs use extensively.

40 Regardless of insurance coverage, the best protection for WAPs against law suits is to exercise the proper amount of care and protection to avoid instances of undue risk and harm to a participant. This can best be accomplished by maintaining a strict level of safety and exploying competent, trained leaders.

41 The "Wild and Scenic Rivers Act" was a congressional declaration whereby "Selected rivers of the nation (and their immediate environments) possessing remarkably scenic, recreational, geologic and similar values, shall be preserved in free-flowing conditions, (be) protected for the future." (15:1271) Such rivers are classified as 1) wild (inaccessible except by trail), 2) scenic (undeveloped shorelines but accessible by road), and 3) recreational (might have development but offer recreational opportunities). Examples of such rivers protected by this act include the Chattanooga River in North and South Carolinas and Georgia, and the Rio Grande in New Mexico. (36:38-42)

These laws seem to imply a preservation of at least some of the natural resources necessary to WAPs. Other public lands which are not 'preserved' to such an extent, but are used by WAPs due to their suffiency as a natural setting, include lands in the National Park System, National Recreation Areas and Forest Lands.

46 Though there has been no wide-spread criticism of WAPs, a few individuals have spoken out against some of the practices and philosophies of such programs. In a letter in the August 13, 1965 issue of The Times Educational Supplement of London, one A. Macklehose questioned the entire purpose of the 'adventure' schools. He suggested that all the qualities purported to be developed in the outdoor activities could be even more effectively enhanced in the classroom or home.

47 Other individuals have criticized the fake situations and emergencies used to keep participants alert, and imply that a primary vocation at some schools is "crying wolf."

Later criticism centered upon the lack of application of a WAP experience to the real world. Often Outward Bound critics endorsed ideas such as reviving the New Deal's Civilian Conservation Corps and similar programs, where youth could enjoy the outdoors and be constructive at the same time.

Robert S. MacArthur and Patricia A. Bergman,
"Report on the Outward Bound Learning/Living Term Program at Dartmouth College, Spring Term, 1974." Unpublished, mimeographed, 31 pages.

General Notes

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1 The Dartmouth Outward Bound Center exists to enhance various elements of the total Dartmouth curriculum -- academic work, residential life, outreach within the region, Dartmouth out-of-doors, and programs of physical fitness. The Center seeks to nurture in undergraduates the qualities of conscience, courage, and commitment which necessarily accompany academic excellence in the development of responsible citizens and competent leaders.

2 The Outward Bound Learning/Living program seeks to promote a greater integration of academic, residential, service and outdoor life at the College. An attractive option for life and work on the Dartmouth campus, it is also a promising model for adaption by other institutions of higher learning.

Specifically, the Learning/Living program responds to the following assumptions:

1. There needs to be a greater integration of academic work with daily life through increased opportunities for intellectual and social interaction between faculty and students outside of the classroom
2. Rather than remain totally extracurricular, certain elements which comprise "the Dartmouth experience" should be more closely aligned with the academic process for the enrichment of academics and the disciplined understanding of experience. The use of Outward Bound laboratories by courses in Psychology, Sociology, Geography, and Government is a good example of the integration of experiential with academic learning.
3. 3/4 In light of the Dartmouth Plan (year round curriculum) new alternatives should be provided to develop meaningful // personal relationships on campus.
4. 4 We must continue to seek alternatives to dormitory life, which attempt to create a family, home-like, and cooperative atmosphere distinct from the institutional flavor of many dormitories at present.
5. New ways must be explored to understand male/female roles and relationships, particularly during a transitional period from an all-male to coeducational student body.
6. It is a basic tenet of the Tucker Foundation and of Outward Bound that individuals learn much about themselves as they try to give themselves to others. There need to be expanded alternatives for undergraduates to invest some of themselves in other people.

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7. Dartmouth College has expressed a commitment to communities in its region. Outward Bound is an appropriate vehicle for the College in extending its resources to a rural population.

8. There needs to be better stewardship of existing College facilities in the out-of-doors, particularly in the educational uses of the wilderness, as demonstrated by Outward Bound laboratories.

9. There needs to be a greater integration of Outward Bound experiences -- Educational concepts, methods, values -- within the ongoing daily lives of participants.

5 10. The development of the inner resources of spirit and conscience is a desirable supplement to the acquisition of academic skill and knowledge in the liberally educated person.

6 Ten students were selected from among 25 applicants on the basis of written application statements and personal interview with at least one of the DOBC staff. Criteria included sex, class, major, previous experience in Outward Bound-type activities or small groups, and experimental living arrangements. We intended to select as heterogeneous a group as possible.

6/7 The resultant profile included: 3 women, 7 men; 4 freshmen, 2 sophomores, 2 juniors, and 2 seniors; majors - earth sciences, psychology, geography, environmental studies, architecture, biology, and government; previous experience, none, Outward Bound, National // Outdoor Leadership School, Dartmouth Outing Club, Dartmouth Mountaineering Club. Grade point average was not a criteria, although it was consulted to ensure that applicants were not in academic trouble.

7 The term students accompanied by two staff members began a 7-day trip during the vacation period preceding the start of the academic term. Designed to provide the initial setting for group interaction and individual achievement, the trip included elements of a standard Outward Bound course -- initiative exercises, basic outdoor skills, a ski expedition from the Connecticut lakes into the Dartmouth College Grant and a snowshoe expedition in the Mahoosuc Range.

8 Following the wilderness trip the group took up residence on campus in the house of the Dean of the Tucker Foundation which was vacant Spring Term. Students were provided a food budget based on $2.00 per person per day, which they managed themselves.

9 ...the house became the focus of many of the problems and issues inherent in the Learning/Living program, and certain general observations about the total program may be listed under cooperative living.

1. The intensity of life together for 11 weeks created energy and siphoned energy from individuals and the group.

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10 2. Roles: The last comment reflects one of the central themes of life together and that is the facility with which people placed each other in roles. Stereotyping may be a necessary introduction to human interaction, but only a starting point. Several members of the group felt bound by initial impressions or roles which the rest of the group expected of them, throughout the term.

11 3. Individual versus group: The task of balancing allegiances between self and group was a constant theme of the program.

12 4. The group versus outsiders: A corollary of the tension between individual and group, was the dynamic between the group and outsiders. In some cases there was a smooth and natural flow of former relationships in and out of the residence. In some cases individuals experienced great difficulty--outsiders feeling they were intruding and insiders feeling guilty about spending time away from the group.

18 Students had been given the choice of completing a certificate or doing first aid as a regular part of Outward Bound. They chose to complete a certificate.

19 Beginning week 5 of the Term students began a drownproofing course intended to provide an individual challenge and confidence builder.

The experience of solitude associated with standard Outward Bound courses took place during week 6. Students spent two days and two nights with minimal provisions on the northwest slope of Mt. Moosilauke.

25 On the basis of the Spring Term's experience I am persuaded that a program which combines selected academic work, cooperative living, involvement in neighboring communities, and wilderness/challenge activities is a compelling alternative to conventional campus life.

26 Student evaluation at the term's end strongly urged that certain non-academic portions of the term -- such as the involvement in Mascoma -- be recognized, either through reduced course load or credit as part of an existing course.

The entire program will gain strength with the designation of a permanent Outward Bound residence.

27 To date, evaluation of the Term has been subjective matter -- journals, papers, interviews, rap sessions, and questionnaires. In a program which seeks to provide an arena for individual self discovery, it is difficult to determine desired outcomes with much specificity.

Robert A. Matthai,
"A Proposal to Evaluate the U.S. Outward Bound Schools." 1968.

General Notes

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1 From the writings on Outward Bound, and from anecdotal accounts of persons who have attended Outward Bound courses, it seems clear that Outward Bound provides a situation which encourages substantial and significant personal change.

One particularly interesting area of change can be called "sense of agency," the feeling of a person that he can affect what happens to him in his everyday life, as opposed to being at the mercy of uncontrollable forces in himself and his environment.

Likewise, it can be hypothesized that the Outward Bound experience instills in its participants self-assurance and self-reliance, and to create positive changes in self-image.

Further, the fact that participants must, by the very nature of the tasks and situations they face, learn to work cooperatively within a group, suggests the hypothesis that affiliation motivation--the desire to relate to and cooperate with others--also increases as a result of the Outward Bound experience.

Finally, since Outward Bound places some emphasis on service to one's fellow man, one might look for changes in altruism among Outward Bound participants.

2 A number of researchers have developed techniques for investigating the kinds of changes discussed above. Heyns and others have developed a system for scoring stories for affiliation motivation; Hyman and others have developed a number of scales for measuring traits or behaviors related to altruism; and a project directed by Dr. David Tiedeman, of the Harvard Graduate School of Education, is actively considering sense of agency as it relates to career decisions by high school students. Finally, a number of researchers have dealt with measurement of self-image.

Thus, one component of the evaluation would involve administering a number of pencil-and-paper tests to incoming and outgoing Outward Bound participants to measure such changes.

Unlike the work previously carried out by Katz and Kolb, this effort will focus on the entire spectrum of Outward Bound participants in junior courses.

Robert A. Matthai,
"Preliminary Report: A Survey of Applicants to the Hurricane Island Outward Bound School." 1969.

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1 A draft survey form was prepared and revised, then sent out to a random sample of 100 persons whose applications were on file as of April, 1969. The survey form (sample attached) was accompanied by a cover letter indicating that replies were anonymous and that responses in no way affected admission to HIOBS. The forms were returned directly to me at the Harvard Graduate School of Education.

As of mid-May, 88% of the survey forms had been returned; this percentage is astoundingly high for mail-out surveys in the social sciences, where 30-40% return rates are considered good.

It should be emphasized that this survey covers those who apply directly to HIOBS, and thus omits those who are referred by various agencies or who enter under special programs.

This preliminary report deals with the profiles of HIOBS applicants: what kinds of schools they come from, their ages, grade levels, and so on.

3 OB seems also to draw disproportionately from the highest socio-economic strata, since about 74% of the applicants do not require scholarship assistance.

Frederick W. Medrick,
Outward Bound and Higher Education: A Rationale and Outline for College Development. (Denver, Colo.: Outward Bound School).

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2 The present statement seeks to explore the philosophical basis for utilizing OUTWARD BOUND experiences to enhance learning opportunities for college students.

As an educational idea, OUTWARD BOUND makes certain assumptions about human nature and its potential for increased definition and refinement. One of the most basic of these is that man is a function of his relationships with his surrounding environment, be it human or natural. This is an attempt to see man as a holistic entity, both conditioned by and determining of the world around him. He becomes a product that requires constant redefinition through the relationships which he establishes with himself, with others, and with nature. This is a concept of confrontation and resolution of conflict that finds expression in all aspects of an OUTWARD BOUND course.

On a personal level, the individual is presented with opportunities to confront himself in a number of stress-inducing situations - rock-climbing, peak ascents, wilderness camping and traveling in an unfamiliar and demanding environment with others with whom he is unacquainted and sometimes in conflict. A student is encouraged to develop a method of functioning which enables him to make choices and sacrifices, incur deprivation and discomfort, maintain flexibility and responsiveness, and persist in a natural style and pace which is suitable to his strengths and skills when confronted by difficulties or obstacles which must be overcome.

One of the challenges of the OUTWARD BOUND experience is interacting for an extended period with individuals from radically different backgrounds and life styles.

Finally, the OUTWARD BOUND experience seeks to make the individual more aware of and responsive to his natural environment.

3 Hence, the value of an OUTWARD BOUND experience for college students lies in providing for increased appreciation of human and physical factors essential for the continuance of human life. This is a notion of survival in the broadest human sense of history and culture.

4 A. Personal and Institutional Priorities
  1. a. Enhancing Self-Concept
    b. Recognizing Individual Needs
    c. Clarifying Personal Values and Directions
    d. Coping with Stress and Ambiguity
    e. Improving Interpersonal relations
    f. Finding Community and Commonality

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2. a. Alternative Approaches to Learning
   b. Experiential Opportunities
   c. Student Responsibility
   d. Student Commitment and Participation
5 e. Campus Orientation
   f. Institutional Needs

B. Goals and Objectives of an OUTWARD BOUND Program
1. a. Personal Development
   b. Interpersonal Effectiveness
   c. Environmental Awareness
   d. Experiential Learning
   e. Values Clarification
   f. Philosophy and Life Styles
2. a. Skills Training
6 b. Physical Challenge
   c. Stress Experiences
   d. Problem Solving
   e. Self-Actualization
   f. Reflection
   g. Evaluation
   h. Service

6/7 3. The following are different forms in which the OUTWARD BOUND educational process has been implemented:

a. The traditional OUTWARD BOUND course of 23 days in a wilderness setting ranging from sea and desert travel to mountain and winter survival experiences. These courses are composed of heterogeneous groups of students from different social and economic backgrounds and based on the traditional course design which includes:

1) a period of skill training and orientation.
2) a series of expeditions to develop and refine these skills and promote group functioning //
3) a solo experience where the individual is alone with a minimum of comfort and supports for three days.
4) a final expedition where groups are mixed and the initial experience reinacted with greater independence.
5) a final period of evaluation and termination.

b. Specially designed courses of similar design and duration which are modified to meet the specific needs of groups such as teachers, counselors, or minority groups or specific curriculum purposes with a college or school. Courses may be modified to focus on or provide for:

1) Environmental study
2) Cross-cultural experiences
3) Inner city exposure
4) Human relations training
5) Academic subject matter

Frederick W. Medrick

Page 7 c. Short term courses for special groups such as public schools, colleges, or agencies where the emphasis is on designing and developing program to meet particular needs such as curriculum design, staff training, team building or crisis intervention.

d. Special arrangements worked out with specific institutions to design a series of experiences or programs which meet the overall objectives of that institution and support structures already in existence. These programs usually have taken the form of providing training and support for freshman orientations, faculty-student retreats, curriculum integration, teambuilding with a student leadership group or responding to particular crisis needs within a given situation. OUTWARD BOUND has provided support and consultation in terms of project planning, funding proposals, program design, staff training, program implementation and evaluation.

10/11 2. Development Priorities and Goals. The following seem to be the critical areas in which OUTWARD BOUND and college institutions have worked and seem able to work together most successfully:

a. Individual Student growth. //
b. Curriculum Integration.
c. Faculty-Student Relations.
d. Leadership Teambuilding.

Arnold M. Naches and Janet A. Roberts,
An Evaluation of Several Effects of the Title III ESEA Dare to Care Program on Involved Students, Faculty, Parents and Community Members.
June 1967, 84 pages.

General Notes

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1 The psychology staff of School District 14 was asked to assist in the evaluation of the Title III "DARE TO CARE" program approximately one week after the actual program was initiated because the original evaluation team was no longer being utilized. It was felt that our most worthwhile contribution could be made through an objective analysis of changes that might or might not occur as a result of participation in this program. It was hoped that this would supplement the subjective evaluation made by the staff and others who were closely involved. The nature of this study therefore was that of an exploratory, fact finding venture. No hypotheses were formulated regarding the magnitude or direction of change on the various instruments. The main purpose was simply to attempt to measure these changes and offer interpretations.

2 The participating students were given the High School Personality Questionnaire which is a standardized commercial instrument and the Student Attitude Survey which was developed by the psychology staff of District 14. These tests were administered to the participating students shortly after the program was initiated and again near the end of the program.

The teachers who were not involved in the program but who had participating students in their classes were given the Student Attitude Survey with the instructions to take the survey in a manner which they felt would typify the way the average student in the program would respond. This was done early in the program and again toward the end in order to compare the results and determine if any changes in attitudes toward these students had occurred by the teachers involved. These teachers were also asked to fill out the Staff Rating Scale for each participating student. This is an adjective checklist developed by the psychology staff of District 14. This was also done to determine attitude changes by the faculty toward participating students as a result of the program.

The primary teacher of the conservation class, who was in close daily contact with all of the participating students, was asked to take the HSPQ and the SAS as he felt a typical student would respond. This was done early in the program and again toward the end in order to determine changes in the primary teacher's attitudes toward these students.

2/
3 Questionnaires were developed by the psychology staff of District 14 for the parents of the participating students and for the general community. // This was done in order to determine the general attitudes and criticisms that these people might have had regarding the program.

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Page 4 The main purpose of the evaluation procedures was to try to determine what changes, if any, would occur as a result of a student's participation in a program such as this. It was felt that three primary areas needed to be explored. These were personality factors, attitude factors, and achievement factors. Unfortunately, it was not possible to measure achievement factors. Therefore, it is also not possible to objectively state the relationship between participation in this program and actual academic achievement, although many subjective statements are offered elsewhere.

The participants in the conservation program were divided into three groups labeled, potential dropouts, volunteers, and top students. The subjects in the potential dropout group were chosen by referrals from teachers. They were described by their teachers as low students who displayed characteristics of students in the past who had dropped out of school. The other two groups of students were volunteers who had heard about the program and volunteered to be a part of it. The top student group was differentiated from the volunteers on the basis of teacher recommendations and past grades. The three groups were given a group personality questionnaire and a group attitude survey early in the program and again near the conclusion of the program. The results of the two administrations were treated statistically and compared.

22/23 The SAS was developed out of an original pool of one hundred items. The items were given to two groups of students chosen by teachers as potential dropouts and top students. An item analysis was then run to see which // items discriminated and which did not. Those items which did not discriminate between the dropouts and the top students were eliminated from the total survey. There were twelve such items leaving a total of 88 items in the survey. The top student group obtained scores which ranged from 352 to 445 with a mean of 393.4 and a standard deviation of 26.8. The potential dropout group obtained scores which ranged from 250 to 338 with a mean at 289.0 and a standard deviation of 25.9. The difference between the two distributions was found to be significantly beyond the .01 level. The frequency distributions of the top students and the potential dropouts is shown in Table 8.

23 Having found significant differences between the scores of students rated as top students and as potential dropouts, the School Attitude Survey was administered to the three groups of students in the Dare to Care program. Table 9 presents the frequency distributions on the pre-experience SAS for the top students, volunteers, and dropouts. The three distributions do show considerable overlap.

The t-test of significance was run between these three groups. The results are shown in Table 10. Both the top students and the volunteers were found to be significantly different statistically from the dropouts in their scores on this instrument. The top students were not found to be significantly different statistically from the volunteer group on this instrument.

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39/ 40 Main Teacher: The main teacher of the conservation class was asked to take the SAS as he felt the typical potential dropout student in his class would respond. This was done in order to note the difference between the way the main teacher perceived these students and the way they perceived themselves. The main teacher obtained a score of 294 on the pre-experience SAS. The mean score of the potential dropout group on the pre-experience SAS was 289. Therefore, the main teacher perceived the typical potential dropout student quite similar but in a slightly more favorable light to the way he saw himself.

The main teacher was also asked to fill out a SAS at the conclusion of the program in a manner in which he felt the typical student would respond. This was done in order to determine if the main teacher's perception of the typical potential dropout student changed and if his perceptions were in line with those of the potential dropout group. The main teacher obtained a score of 341 on the post-experience SAS. This // was 47 points higher than the pre-experience SAS. The main teacher's score of 341 can be compared to the post-experience group potential dropout mean score of 290.6. It is apparent that the main teacher perceived the typical potential dropout student in a much more favorable light than the typical potential dropout student perceived himself as measured by this instrument.

40 Involved Faculty: The other teachers who came into contact with the students of the conservation class through other classes were asked to take the SAS as they felt the typical potential dropout student in their class would respond. This was done in order to note the difference between the way these teachers perceived these students and the way in which the students perceived themselves. The involved teachers obtained a group mean score of 253.9 on the pre-experience SAS. The mean score of the potential dropout group on the pre-experience SAS was 289. Therefore, these involved teachers perceived the typical potential dropout student in a less favorable light than the typical potential dropout student perceived himself, as measured by this instrument. The difference between these two means was statistically significant at beyond the .01 level.

40/ 41 The involved teachers were also asked to fill out a SAS at the conclusion of the program in a manner in which they felt the typical student would respond. This was done in order to determine if these teachers had any change in their perceptions of the typical potential dropout student as a result of participation in the program and if these perceptions were in line with those of the potential dropout group. The involved // teachers obtained a mean score of 246.3 on the post-experience SAS. This was slightly lower, but statistically approximately equal to the pre-experience SAS. Thus, the involved teachers saw very little change (on this instrument) when the pre-experience SAS was compared to the post-experience SAS. The involved teachers' mean score of 246.3 can be compared to the post-experience potential dropout mean score of 290.6. It is apparent that these teachers perceived the typical potential dropout student in a less favorable light than the typical potential dropout student perceived himself, as measured by this instrument.

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48 Analysis of findings within each dimension:

The community questionnaire asked specific questions about an action-oriented curriculum since this group is experienced and knowledgeable about how youth learns. All felt that such a curriculum is a must, particularly in a community such as ours, and that the school is in the best position to provide such an education (Table 18).

58 Summary:

Analysis of the findings certainly indicate a very positive feeling about the program. Many felt the program needed no changes. Recommendations made were concerned with expanding the program to other students and more areas. Communication seems to be the only area of real concern and this is of course the most difficult aspect of any problem. It is important to realize that the questionnaire filled out represents the feelings only of people directly involved or vitally interested in the program. Such persons are, of course, in the best position to understand what has been done. There seemed little doubt that responses to the questionnaires show that the objectives of the program have been accomplished. The school is filling a vital need through an action-oriented curriculum which provides a ground for students to grow academically, physically, and emotionally (Table 25). Students already involved in the program see themselves as being more knowledgeable and worthwhile. They understand themselves and others much better than before (Table 26). Parents are delighted with the interest and enthusiasm for life shown by the boys since the program started. They know their boys have been stretched (Table 27).

Eugene C. Nelson,
"Predispositions and Attitudinal Changes in Outward Bound and Human Relations Groups." 1970. Course paper.

General Notes

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1 If someone were to go out in the wilderness and take a quick look at an Outward Bound (OB) group doing their thing -- rock climbing, running marathons, snowshoeing, etc.--and then walked in on a Human Relations (HR) group doing theirs--encountering one another in the "here and now"-- he would probably be most impressed by their differences. But if that same person went through each of the experiences, he would probably be equally impressed by their similarities. This at least was my impression after going through an OB course last spring and a HR course this fall.

2 The Outward Bound Group-- The OB group which was studied consisted of three "gangs" and a professional OB group leader for each of the three gangs. The OB course ran for twenty-one days in January and was staged in the Moosilauke region of the White Mountains in New Hampshire. Each of the three gangs were autonomous for the most part and they survived for the three week period without the benefit of any permanent heated shelter, even though the average temperature was fifteen degrees below zero.

3 The Human Relations Group-- The HR group members were divided into four groups with twelve students and a professional HR training group leader comprising each of the four groups. The groups went throughout their courses almost completely independently of each other, therefore, there was even less in-group out-group competition than the OB groups who shared a common base camp.

The HR groups met at least twice a week for generally intense encounter sessions which lasted two hours. Moreover, most groups engaged in special sessions in order to further enhance their human relations training.

4
1. Do HR or OB students have attitudinal predispositions that differentiate them from other (CG) Dartmouth students?
2. Do HR students have attitudinal predispositions that differentiate them from OB students?
3. Do HR and/or OB students undergo attitudinal change as a result of their course experience?
4. Which course produces the most attitudinal change?
5. Do OB students undergo attitudinal change that differentiates them from HR students?

5 Sample Size-- The original sample consisted of 115 students who were attending Dartmouth College during the winter term of 1970. Of the

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115 students in the sample, twenty-eight were in the OB course, (Education 41-42); forty-two were in the HR course, (Socy-Psych 27); and forty-five were in the control group, (Socy 7). The sample was predominantly male. There were three females in the OB subsample, three females in the HR subsample, and two females in the control group.

7/ 8 Question #1: DO HR OR OB STUDENTS HAVE ATTITUDINAL PREDISPOSITIONS THAT DIFFERENTIATE THEM FROM OTHER (CG) DARTMOUTH STUDENTS?

(Please refer to Graph I, page 7a.)

Of the forty-six items for which Q-correlations were run, fourteen plotted items fall outside the circle of radius 0.40 Q-units. Therefore, the answer to the first question is, yes, the HR and OB students // do have several specific predispositions and predilections which do differentiate them from the control group and presumably from other Dartmouth students.

Question #2: DO HR STUDENTS HAVE ATTITUDINAL PREDISPOSITIONS THAT DIFFERENTIATE THEM FROM OB STUDENTS?

If one studies Graph I, it soon becomes apparent that HR students are differentially predisposed from OB students on several items. One can reach this conclusion with ease by simply scanning quadrants II and IV--if any items are located in the outer regions of these quadrants, (such as item two in quadrant II or item 85 in quadrant IV), then HR students must be predisposed in the opposite direction from OB students on any such items.

Outward Bound Predispositions-- Compared to the control group, OB students think of themselves as weak (18), unfriendly (17), pessimistic (91), quitters (2), who lack self-confidence (5); but, on the positive side, they place high value on cooperation and teamwork (81), frankness (82), and strive mightily for independence (100).

9 Human Relations Predispositions-- HR students perceive themselves as contemplative, inner-directed individuals (77); they are as independent (100), and somewhat less self-sufficient (16) than other Dartmouth students. In the area of interpersonal relations, they see themselves as being relatively unfriendly (17) and believe that the process of getting to know people is difficult (97), but that the best vehicle for gaining self-knowledge and knowledge of others is discussion (80, 85).

11 Fifteen items have a vertical-OB shift greater than or equal to ±0.35 Q-units, whereas, only seven items have a horizontal-HR shift greater than or equal to ±0.35 Q-units. Eleven items have a vertical shift of ±0.50 or more; just one item has a horizontal shift in excess of ±0.50 Q-units. The total vertical-OB shift for all forty-six items is one hundred forty-four Q-units and the total horizontal-HR shift is eighty-three Q-units. Similar results are obtained when one compares the partial-differential shifts. Therefore, it is clear that the OB course produced substantially more attitudinal change in its students than the HR course.

Eugene C. Nelson

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12 It would seem to me that the OB technique is superior to the HR technique in activating short term self-awareness and attitudinal change but that the HR method may be more effective or as effective in the long run.

13 Question #5: DO OB STUDENTS UNDERGO ATTITUDINAL CHANGE THAT DIFFERENTIATES THEM FROM HR STUDENTS?

14 Therefore, the answer to the fifth question is, yes, in a few instances OB students experience differential attitudinal change relative to HR students, but, more often it is the case that the changes are one-sided or roughly analogous. This gives further validation to the idea that the two programs are in many ways more similar than dissimilar.

16 It would seem that an excellent synthesis could be made by combining the Outward Bound idea with human relations techniques.

Joseph J. Nold,
"Outward Bound Approaches to Alternative Schooling: A Preliminary Paper." 1973.

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1 OUTWARD BOUND is an educational experience of self-discovery that uses challenges found in a natural setting as the teaching medium. Traditionally OUTWARD BOUND presents a course lasting approximately 25 days that presents a series of progressively difficult physical challenges and problems. OUTWARD BOUND asks people to face many seemingly impossible tasks. Confronting these, participants must call upon individual reserves of strength and perseverance they might not think exist. There are times they may find success requires the help of companions and the reliance upon the overall strengths represented within a group.

2 The program adaptions of OUTWARD BOUND concepts and methods are many. This paper focuses on five types: (1) motivational programs; (2) the human relations programs within a school; (3) an alternative to traditional physical education; (4) curriculum enrichment; (5) faculty development.

13 A word of caution is necessary. While many of the programs have deep educational relevance and address themselves persuasively to the crisis in the classroom, they are not without their inherent weaknesses.

First, there is the question of legitimacy. Do these activities really belong in schools? What does it have to do with the learning process? Does it get a person into college? Does it get him a better job? How do you articulate the learning goals in such a way that it gains the support of school boards? The taxpaying public?

14 There is concern about the dangers involved, the risks, liability, and insurance, though the safety record of such programs has been exceptionally high.

Furthermore, the whole field of research in the area of affective education is imprecise and ill-defined. The only definitive study of OUTWARD BOUND is on juvenile delinquents. As a science psychological research is where geography was at the time of Columbus. Hard data is hard to come by.

In the first place, it has been demonstrated that such adventure-centered programs can reach a wide cross-section of student populations in a personal way.

15 Second, such programs have emerged as a very effective vehicle for the development of better communications and human relations.

Third, OUTWARD BOUND addresses itself to what is drab, oppressive, and alienating in our society and institutions.

Joseph Nold and Mary Wilpers,
"Wilderness Training as an Alternative to Incarceration." In
Calvert R. Dodge, A Nation Without Prisons (Lexington, Mass.:
D.C. Heath and Company, 1957).

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155/ 156 Since 1962, over five hundred delinquent youngsters, boys and girls, have taken part in the program, interspersed with the normal student population coming from a wide cross-section of American society, from all backgrounds and walks of life. The program, lasting approximately three weeks, has four phases: basic skills training; a long expedition; the solo, a three-day period of solitude; and the final testing events. In basic training the skills necessary to survive and travel in a wilderness environment are taught, depending on the school // location--forests of a national park, high mountains, the sea, canoe country, the desert. This is followed by a long expedition that has clear objectives - to climb so many peaks, to canoe so many lakes, to explore so many islands. There is a sense of purpose, a fixed destination, clear-cut goals. Solo, usually three days alone in a remote setting, with a minimum of food and shelter, provides a period of contemplation. And finally there are experiences that test fitness, skills, and teamwork, such as small groups expeditioning through unfamiliar terrain without an instructor. A long-distance marathon event is the final personal challenge.

156/ 157 Most delinquent youth are teachable and have the energy and desire to learn, and adventure-centered wilderness training speaks to their needs. A wilderness environment, with which an inner-city youth is totally unfamiliar, and the new skills required to cope with it, offer a fresh chance to develop self-confidence and the ability to manipulate the environment by living successfully with it. The obvious need for skills--tent-pitching, camp cooking, direction-finding, climbing techniques, and first aid--permit learning to take place in a nonauthoritarian setting. Feedback is immediate--porridge is burned if it's improperly cooked; a sleeping bag gets wet if a tent is inadequately pitched. Problem-solving techniques are learned through day-to-day living tasks as well as the specially contrived initiative tests, problems presented to a group that require planning and teamwork through resolve. An individual shares in the success that is only possible through cooperation, persistence, and teamwork. The experiences provide opportunities to be successful, to help and to be helped. Sharing is // essential, and communications are improved. Stress situations compel a student to face his own reactions, his abilities and inabilities, and to make decisions for himself. Rock climbing and rappelling are high-risk controlled situations of immediate confrontation. Frustration will not help one get up a rock face, and it quite often impossible to back down. Persistence is rewarded by the arrival at one's destination, finally achieving the summit. Peak ascents demand delayed gratification, are the culmination of several days' expenditure of energy and group effort. The accomplishments are personal successes; the reward is from within.

157 Mutual trust is developed on an adventurous expedition.

Joseph Nold and Mary Wilpers

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167 Outward Bound and the other organizations with similar programs can make the following claims:

1. A neutral setting, a change of environment, hostility provided not by bars, bricks, and walls, but by the natural forces of nature, demand a change in outlook and an adjustment on the part of the individual that can often catalyze further growth and change.

2. Activities that are challenging, exciting, exhilarating, where the results are immediate and irrevocable, are readily grasped and understood. They speak deeply to their need to feel competent, to exert their large muscles, to assert their "machismo" in socially acceptable ways. The experience is often seen as a "rite de passage," helping to clarify the confusion of emerging manhood.

3. The small-group structure fosters cooperation, and teamwork, and helps build trust in human relations. Where staff has been trained in group process the opportunities for reality counseling are many and powerful.

167/
168 4. There is the right psychological moment. The high impact, drama, deeply stretching experience, has the greatest effect if planned at critical transition // points. Seen as a catalyst, it opens one to insights into oneself, it opens doors to new experience, it helps one move on. It comes best at the beginning of a longer program of treatment and rehabilitation, or as the transition phase between institutional life and return to society. Or for first offenders, it can be a more viable alternative to the corrosive influences of institutionalization.

5. The program needs to be seen not as an end unto itself, but rather as a part of a continuum. It needs to be seen in the total context of a young person's life, and the treatment prescribed for him in his current difficulties; and the most successful programs are those that, picking him up right from the courts and streets, can see the program beginning at the point of initial contact and carrying him through the wilderness experience, back to his community, and into the resources of referral and counseling that can further sustain him.

6. Finally and most important, it provides a learning climate that is enhancing both to the helper and the "helpee." It is a program where the professional cannot hide behind facades and jargon. The activities which cause the adrenalin to flow and are exhilarating, breathtaking, uplifting, help build relationships that are warm, intimate, and equal--where two people or ten can interact with each other with respect, dignity, and humanity. Herein lies its secret and its promise.

Robert Patterson Nye, Jr.,
The Influence of an Outward Bound Program on the Self-Concept of the Participants. 1975. Unpublished dissertation, Temple University.

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1 *Statement of the Problem*

The problem was to determine what effects, if any, an Outward Bound program had on the participants' self-concept and, if there were a change in self-concept, how durable that change would be.

2 The hypotheses for this study are that, as a result of a standard 24 day co-educational OB experience, (a) there will be a significant increase in the total (Total Positive) self-concept score and its components, specifically: Self-Criticism score; Physical Self score; Moral-Ethical Self score; Personal Self score; Family Self score; Social Self score; Identity, What He *Is* score; Self-Satisfaction, How He *Accepts* Himself score; and Behavior, How He *Acts* score, (b) three months after the experience, follow-up scores will remain significantly higher than pre-test self-concept scores, (d) three months after the experience, there will be no significant relationship between sex and the self-concept scores, and (e) there will be a significant positive correlation between instructor evaluations and post-test self-concept scores.

14 The test used to measure self-concept was the Tennessee Self Concept Scale (Fitts, 1965). Other tests such as Cattells 16 PF Inventory and the Minnesota Multiphasic Personality Inventory were examined; however, it was felt that they did not test specifically for and fit the definition of self-concept as established for this research. The TSCS was also selected because of its particular usefulness in the ability to administer it in the field under difficult circumstances such as was necessary with the OB program.

There were two forms of the TSCS available: (a) the Counseling Form and (b) a Clinical and Research Form. For this study the Counseling Form was administered. The Clinical and Research Form was not utilized as it was designed to diagnose mental health disorders.

15 Using the test-retest method on 60 college students over a two week period reliability data for the nine variables being tested showed a range of correlations from .75 to .92. It is noted that the independence of the sub-categories of the TSCS has not been demonstrated.

16 The TSCS had been selected because of its specific and direct attention to the self-concept. It was also used in at least 118 previous studies (Buros, 1972). There was also relative ease in administering the test in the wilderness area; it took only approximately 13 minutes, and could be given to large groups without difficulty.

17 The treatment was a twenty-four day standard co-educational course at the North Carolina Outward Bound School in Morgantown, North Carolina.

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It began July 12, 1974 and culminated August 4, 1974. The activities followed the typical OB program: initiative tests, ropes course, climbing, rappelling, white water canoeing, expeditioning, and a solo experience of three days alone.

There were 84 subjects (38 males, 46 females) who enrolled in and began the standard 24 day co-educational July, 1974 North Carolina OB course. The range in age for the group was from 16 years 6 months to 23 years 5 months with a mean age of 17 years 10 months.

The male subjects ranged in age from 16 years 7 months to 20 years 9 months old with a mean age of 17 years 9 months.

The female subjects ranged in age from 16 years 6 months to 23 years 5 months old with a mean age of 17 years 11 months.

The majority of the subjects were high school students and from a middle class background (personal communication with Dan Meyer, director of the North Carolina OB School, February 6, 1974).

In the pre-test 84 subjects (38 males, 46 females) participated; in the post-test 82 subjects (38 males, 44 females) participated; in the follow-up test 84 questionnaires were mailed out and 58 (71%) were returned. Of these 58, 23 (61%) were male and 35 (80%) female.

17/18 The comparison group was made up of summer school students from // West Chester High School, West Chester, Pennsylvania. These students were taking additional course work during the summer session to enhance their educational background and not to make up deficiencies. They were members of three English and History sections for a six week period which coincided with the July OB course. These students were informed as to the nature of the study and the OB program. It was felt that if the students could identify with the study an atmosphere would exist which would enhance the number and quality of returns from this group for the three testing sessions.

20 The experimental group was tested the day of arrival and the day before leaving the North Carolina OB School. The follow-up test was administered three months later by mail. The comparison group was tested on similar dates.

21 To aid in assessing the validity of the TSCS each of the instructors were asked to evaluate each participant in his crew at the completion of the course on the ten categories of the TSCS. The instructors evaluation technique was a checklist for each participant. The checklist consisted of evaluating the participant on a five point scale of very low, low, adequate, high, very high on the ten categories using the definitions of each category as given in the TSCS manual.

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Page 22/23 In examining the data for the hypothesis "there will not be a significant correlation between the instructors evaluations of the participants self-concept and the participants post-test self-concept scores" the Spearman Rank Order Correlation Coefficient was utilized with a .05 level of significance selected to reject the null hypothesis. //

It was found that on the basis of the evidence the null hypothesis could not be rejected for the 10 self-concept categories for the females, males, and total group except for two analyses.

38 This finding seemed to show that the instructors were not able to identify the participants self-concept level as he/she presented it when responding to the Scale. It is believed that this finding does not necessarily refute the validity of the Scale but may indicate that the instructors were unable to correctly identify a persons self-concept because of a lack of expertise in picking up cues which indicate self-concept.

Elizabeth V. Phillips,
Upward Bound--Outward Bound: A Study of Dropouts Among Poor Urban Youth in Outward Bound. 1970. Unpublished thesis, Yale University, 97 pages.

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6/7 Over several decades, Outward Bound has demonstrated that it can help build ego strength in work with middle- and upper-class city youth. The program has been successful in ego-building, using such activities // as teaching youngsters to conquer fear in mountainclimbing, to master the skills of wilderness camping, and to help others as part of a team. It was the joint expectation of the Upward Bound and NC-12 staffs that the program could be as effective with poor city youth as with more affluent youngsters.

7 ...by the end of the seventh day, twenty-two students had left or had made plans to leave NC-12. Two others left later, raising the dropout total to twenty-four--a total of 36%.

Of the forty-four students who completed the course all reported growth experiences, many of which were remarkable personal achievements.

8 This study tries to identify factors which may have contributed to the failure of the twenty-four students. It looks at the "dropouts" in terms of several background variables, some rough assessment of ego strength, some questioning of the strength of inner controls--all toward the end of trying to discover predictors of potential failure to cope with Outward Bound.

10 Upward Bound is a federally-funded program which was developed by the Office of Economic Opportunity in June of 1966 and is currently administered by HEW. In 1966 programs sprang up in two hundred and fifteen colleges, universities and residential secondary schools. In the first year 20,000 youngsters, mainly high school juniors and seniors, were enrolled. By 1968, Upward Bound programs were established in three hundred institutions with 26,000 students participating.

The purpose of the program is to spark motivation for learning and to develop academic skills in a pre-college preparatory program so that youngsters from low-income backgrounds with inadequate secondary school preparation may stand a chance for success in education beyond high school. Curriculum should "develop creative thinking, effective expression and positive attitudes toward learning."

11/12 The O.E.O. Guidelines on eligibility for the program emphasize family income and "academic risk." The income of 90% of the families must range between $3,600 for a family of four, and $7,200 for a family // of ten. An additional 10% of the families may have an income range from $4,700 for a family of four to $8,200 for a family of ten. All students must be "academic risks" i.e., with "ability which is not likely to show on standardized tests."

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13 Upward Bound Dropouts 1966-68

1966	25/49	51%
1967	25/71	35%
1968	11/73	15%

13/
14 Although the dropout rate was decreasing, the Upward Bound staff continued to be concerned about a rate as high as 15%. It was also concerned with the limited improvement in academic achievement of its // students. The program had not been able to increase students' motivation for academic work sufficiently to satisfy the staff. The third concern, though somewhat less urgent, was the lack of involvement of students in Upward Bound program planning.

14 With the first two concerns in mind, Richard Brown and Peter Budryk, Director and Associate Director respectively, began exploring programs which had had some success in heightening motivation toward achievement. Two programs particularly appealed to them -- Outward Bound and Achievement Motivation Training.

A plan for using the two programs developed: Upward Bound would take sixty-eight students to North Carolina Outward Bound school for the month of June. The program would be compulsory for those enrolling in Upward Bound for 1969. Then, in July, upon return to Middletown, the students would have a full-time (8-4 daily), one month, Motivation Achievement Training program.

14/
15 Outward Bound's philosophy centers on stretching // oneself to the limit physically and psychologically in the wilderness. The Motivation Achievement Training Program in July would emphasize realistic goal setting and help the students apply the concept of stretching to the limit in the academic sphere. The plan included the entire Upward Bound staff's going to Outward Bound and participating fully in that program with the students.

15 Outward Bound is a survival course which includes rock climbing, rescue training, group backpacking expeditions, and a solo three-day camp-out. Emphasis is placed on self-mastery and concern for others. Students are evaluated in terms of leadership, compassion, ability to discover one's own outer limits, respect for others, humility, and humanity.

17 There were two reasons for the hasty preparations. Upward Bound operates within three bureaucracies: the Federal Government, Wesleyan University, and the Middletown school system, and the release of funds had come so late that recruitment of students was both late and rushed. Furthermore, there had been the wish to involve the total Upward Bound staff in the student selection process, which proved unrealistic in terms of time available.

18 ...this Upward Bound group would be NC-12's first experience with a coed group.

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18/19 There were several significant ways in which // this group differed from other Outward Bound groups other than the young age and its being coed: the youngsters came from the same communities, many knew each other well, and except for the eight tuition students, the group came from the same low socio-economic class. There was an almost even black-white mix, and they were accompanied by the Upward Bound staff. They were not voluntary, middle-class, paying applicants, selected from many different localities as is usual with Outward Bound.

22 The NC-12 staff was surprised by the young age of the group (58% were below 16, a higher percentage than their expectation). The hope had been that their program would have to be only minimally modified, and that in "deference to the women." In addition, they were shocked by what seemed to them to be the "low level of personal commitment," having expected "rather positively motivated, select students." It was never clear where this idea originated. By the end of the first day "the mutual trauma of students and NC-12 staff was apparent to all of us."

31/32 Still, there was a pervasive disappointment among the NC-12 staff which can be seen in their ten-point assessment of student characteristics in the NC-12 director's report of the program.

"1. Very slow development of constructive group processes, denoting great reluctance to affiliate with or invest in one another.
2. Continuous testing of instructors to determine how far they could be pushed; often as a means to find that point when a frustrated instructor might send the student home.
3. Great difficulty in relating from the preparation of the moment to a later expectation for performance.
4. Quick retreat in situations of the least stress to voluminous profanity. The continuing refrain of NC-12 was "I ain't // gonna do that sh—."
5. Repeated use of the threat to quit the course in an effort to manage processes toward lower performance demands.
6. Great difficulty in handling free time positively.
7. Considerable reluctance to extend trust even as vociferously demanding trust in them.
8. Considerable pride in individual accomplishment, but concurrent reluctance to assist in or acknowledge accomplishment.
9. Significant unpredictability to situations of stress, seemingly without identifiable pattern.
10. Very short attention span when called upon to learn necessary skills for independent mountain performance."

34 Data were collected on background variables, ego strength indicators and indicators of inner controls which the sixty-eight students brought with them to NC-12.

41 In collecting this material, the writer and the research team were guided by certain "hunches" too unscientific to be called hypotheses.

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41/ Our own hunches were:
42 1. One parent families might produce more dropouts than two parent families.
2. Ordinal position in the family might be connected with the esteem in which one is held or the attention which one is given. Therefore a second or even later child might be more likely to drop out.
3. Large family size, connected as it is in this group with poverty might produce more dropouts. //
4. I.Q. as an indicator of the esteem in which students are held in school might be connected with self-image. Dropouts might have lower I.Q. scores than stayers.
5. Since the standard Outward Bound program is planned for boys between the ages of sixteen and twenty-three, students under sixteen would be more likely to drop out.
6. Since girls were integrated into the program for the first time, the dropout rate for girls might be higher.
7. Since there were a number of students who had participated in the Upward Bound program in summer 1968, we had two hunches. First, that they would have relationships both among peers and leaders which would support their staying. Conversely, since the two summers were so antithetical in terms of spartan life and comfort, this group might have unrealistic expectations of a repeat of summer 1968 and express their disappointment by dropping out.
8. Scores on the "I am strong" section of the student and parent questionnaire might be lower for the dropouts than others, both in terms of self-assessment and assessment of parents.
9. TAT scores on need-achievement might be lower among the dropouts than others.
10. Home climate scores from both the student and parent questionnaire might be lower among the dropouts.
43 11. Psycho- and physical pathology of parents might be found among the dropouts and not the stayers.
12. Through projected interviews with parents, we might find less family strength in family organization and less support of educational goals among the dropout families than among the total population.

82 Perhaps the program is not appropriate for poor city students in another way. The leap from climbing a mountain to academic pay-off may be too big a leap of faith to be relevant to Upward Bound students. Furthermore, if students have had no experience in the out-of-doors and/or have never been away from home, they may need another kind of program. Both possibilities suggest a preparatory program which might be pre-Outward Bound, or parallel with Outward Bound.

83 The dropout rate of Upward Bound in 1968 was 15%, the dropout rate of Outward Bound over the years is 3%. The combined Upward Bound-Outward Bound rate at NC-12 was 36%.

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86 This study suggests that Upward Bound might wish to rethink its use of the Outward Bound School as a mandatory part of its program.

There are some Upward Bound students who profited in significant ways from the program; others did not. Therefore we would suggest that more precise selection might identify those students who can capitalize on the opportunities offered by Outward Bound and that others might be offered alternative programs.

86/87 1. That the selection process should include extended parent and student interviews so that there could be an assessment of the way in which the student has handled stressful situations in the past. Knowledge of student's experience away from home, knowledge of his experience in the out-of-doors would be an important part of these interviews. This knowledge would lead us to feel confident // of his ability to adjust to Outward Bound.

2. That there be several black Outward Bound instructors who could establish quick rapport with and relate to the black students and their needs.

3. A preparatory program might be designed for the spring before or the year before Outward Bound to prepare the students, to give a foretaste of mountaineering.

4. Since the Upward Bound staff considered the major reason for the students' leaving NC-12 to be fear (fear of failure, fear of falling, fear of losing face by exposing lack of courage), then we would recommend that some of these fears might be worked out in preparation for the program.

88/89 5. There should be consideration given to the possibility of modification of the Outward Bound program to minimize challenge for these students and to maximize individual goal setting. Or to modify the stress in terms of what is necessary and sufficient.

John C. Pooley,
"The Assessment of Men for Job Placement at Outward Bound Schools."
1968. Course paper, Measurement Seminar.

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1 How is it that some men have the ability to congregate a group of individuals who are productive, compatible and complementary (with respect to a team of teachers, committee, industrial staff, and the like), while others are less successful? Could a test or group of tests do the job as well or better?

10/11 3.1 Assessment Sources.

In assessing an individual, 3 sources are available:

1. the individual himself.
2. acquaintances of the individual.
3. those assessing him.

Remembering that in the last section, the criteria was classified into three sections, namely technical proficiency, personal qualifications, and motivation or interest for the job, the availability of assessment sources must also be classified. Those charged with the task of assessing observe the candidate directly. The assessor or assessors may call upon those acquainted with the candidate to furnish material on his capacity for the job--called indirect observation. Finally, information may be elicited from the candidate himself.

Direct observation of candidates for jobs at Outward Bound School may occur in the following instances:

a) during an instructors' course.
b) during an interview.

Indirect observations can be given by:

a) those who are able to comment on the character and personality of the candidate as a result of their contact with him in a variety of situations and environments. This may be called 'general information.' //

b) those who have met the candidate in specific situations only.

12 To cover personnel selection and classification in a comprehensive way, research in prediction should be dealt with in the following stages:

a) Job analysis, to determine what characteristics appear to make for success or failure.

b) Choice of possibly useful tests to measure these characteristics.

c) Administration of tests to an experimental group of workers.

d) Collection of criterion data showing how an experimental group of workers succeeded on the job.

e) Analysis of the relation between test score and success on the job, and installation of most effective selection plan. For a discussion on these stages, see Cronbach (1960), Chapter 12.

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42 Other aspects of the literature which would seem to be worth reviewing, according to individual circumstances and tastes, are enumerated as follows:

1. Factors motivating teachers to enter the teaching profession--see studies in the Review of Educational Research, June, 1967.
2. The reliability and validity of observer ratings--see Lindzey (1954), p. 396.
3. The philosophy of Kurt Hahn, founder of Outward Bound, reviewed in an article by Röhrs (1966).
4. Other leadership studies. See Stogdill (1948), Lippitt (1952), (1961), Selvin (1960),Grusky (1963), Goulder (1950), Jenkins (1947).
5. Predictions of Teacher Effectiveness, see Ryans (1958).
6. Literature on expeditions-polar, mountain, survival (land, sea, wartime).
7. Methods of assessing Peace Corps and Voluntary Services Overseas applicants.
8. Studies on Sociometry--Lindzey (1954), p. 438.
9. Projective techniques of assessment. See Hanfmann (1947), Getzels and Jackson (1963).
10. Assessment procedures in the services.

47 None of the schools use objective means of assessment, although only one Director explicitly referred to this.

L. Stanley Ratliff,
"Senior Seminar 1972: An Evaluation of an Experiential Learning Program at East High School, Denver, Colorado." A Joint Venture of East High School and Colorado Outward Bound, University of Colorado.

General Notes

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1 WHAT IS THE SENIOR SEMINAR? - a school in living for life.

9 The live-in with Mexican families in Hermosillo proved an exciting venture into language, culture, and a life style quite different from our own. Students lived with families for three days and during this time became exposed and familiar with a traditional Mexican city. Many were, for the first time, confronted with the Spanish language as their only means of communication. They visited and attended classes at school with their hosts, traveled via foot and autobus into the city, shopped and became a part of a family. This part of the course was especially positive in terms of international relations and human relations. The Mexican people overwhelmed the students with kindness and acceptance, opening their hearts and homes to them. In turn the students were encouraged to attempt to communicate with them in their own language. The response from students on the success of the live-ins was positive. They had the opportunity to compare life styles, the extremes of poverty and wealth, to compare family structures, and employment problems of the Mexican people. Since the trip, there has been an exchange where 20 of their students came to Denver to live with families. This is a good indication of the relationship with the people of Hermosillo.

11 Power and Politics proved to be an excellent learning experience. It was a glimpse of the political process and of politicians that the students' parents never got. It was a lesson on civics that no high school civics book ever put across. Some students have commented that they learned more on this module than any other. The strengths of the module were in outstanding activities, a definite focus and a well-organized schedule.

The activities included simulation games, visits to Buena Vista, the Denver County Jail, and the various State, local and Federal courts, speakers from the District Attorney's office, the Public Defender's Office, and Common Cause. There were two panels. One was on the role of the church in the community and the other on the role of education in the community. Through these activities students came to have an understanding on what political power is, how it is used, and how it may be obtained. Students also gained an idea of the complexity of the issue of who has the power and also a certain optimism in that it is possible for them to gain power and effect change.

Rather than keep a journal, students were required to write answers to specific questions about each activity.

16 For eight days the students lived with Navajo families, either alone or in pairs. The students were expected to take part in family life. Students lived either in Navajo hogans or in reservation homes. Many learned

L. Stanley Ratliff

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to take care of herds of sheep, goats; shearing wool; repairing fences, carpentry and planting. Most students prepared meals and often learned to cook with the bare minimum--mutton and government supplied canned goods. From the women, students learned about the arts of dyeing, carding and spinning and weaving Navajo rugs and blankets.

21 Both experiences in St. Louis provided an intensive group experience. This was as a result of the confined living quarters in the cities. Activities included visits to local high schools, a black housing project, a neighborhood housing development center, a day in downtown St. Louis, visits to various community organizations and action-oriented groups, and attending various cultural activities.

23 Yampa-Green River Module

The students take a five-day float down the Yampa and Green River in Dinosaur National Monument. The area is rich in geologic formations. Indian art from the Fremont culture of 400 A.D. is found in many places in the canyons. Animal and plant life are abundant. The area is an excellent place for many types of learning experiences.

Report on the Practicum in Outward Bound (July 1-August 9, 1968).

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12 The examination of the concept of alienation provided a background for examining the question of: why the need for experiences such as OUTWARD BOUND? Through a sociological concept, it was fruitful to examine alienation from the interdisciplinary point of view.

Blue 1 OUTWARD BOUND AS A STYLE OF EDUCATIONAL TECHNIQUE

OUTWARD BOUND is an educational movement which speaks to the growth needs of individuals, physically, emotionally, and spiritually. Dr. Kurt Hahn, Headmaster of the Gordonstoun School in Scotland, started OUTWARD BOUND in 1941 to imbue young British seamen, who were losing their lives at sea when their boats were torpedoed by the Germans, with a will to survive. Older, less physically capable men were surviving these experiences while the young were dying. OUTWARD BOUND grew out of the training program which Dr. Hahn established.

While the programs of no two OUTWARD BOUND schools are identical, there are certain concepts, both in idea and methods, that underlie all courses.

The problem approach to teaching and the discovery method of learning, where instruction is kept to the barest minimum, fosters inquiry, an experimental outlook and independence. More is learned than just the fact or the skill. An approach to life is conveyed.

The deliberate posing of realistic and unavoidable problems for individual students, problems that demand a response - such as the ropes course and the high rappel - evoke the willingness to try, encouraging initiative and resourcefulness and greater self-motivation.

Man is also a social animal and motivation is related to social functioning. Therefore, the primary unit of operation in an OUTWARD BOUND program is the patrol, watch, or brigade, made up of two instructors and nine to twelve men purposely chosen to obtain a socio-economic and racial mix. Small-group dynamics are tightly planned. Problem-solving situations demanding group solutions are programmed. The group decision-making process along with the group interaction during these tests is discussed. One's peers become one's most sensitive critics, a mirror for oneself.

Blue 2 Self-discovery is paramount. This growth can be considered in four aspects which are related to the OUTWARD BOUND experience: self-discovery, compassion, spiritual awareness, and development of a life style.

The fostering of compassion for others is an important factor of personal growth, and an essential goal of OUTWARD BOUND.

Blue 3 OUTWARD BOUND is more than an understanding of these other three factors; it is vitally concerned with weaving them into a forceful, workable life style to be carried far beyond the 26 days of an OUTWARD BOUND course.

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Basic to the OUTWARD BOUND method is the unique environment in which the student's normal life routine is dynamically altered. This change comes in the nature of a wilderness setting. This environment is lived in by the students 24 hours a day for 26 days. It is a completely daily involvement in a new place, new routines with unknown individuals. There are no outs. "Normal fronts" cannot as easily hold up when the usual is no longer at hand. Students are forced to live where they are and not to seek refuge in past habitats or other supportive individuals.

Blue 5 Solo affords an opportunity to think about the personal and interpersonal growth and confrontation which has taken place during the course, about life, about where one is going and from whence one has come.

Through another technique, that of stress in the form of hunger, fatigue, fear, danger, despair, loneliness, challenge, and the reality of death, students on an OUTWARD BOUND course are in another guise brought face to face with themselves, not only their strengths, their limits (supposed and real), but also their weaknesses.

Blue 5/6 "Ernest Hemingway once said it was a great pity that wars are so infrequent, because a man might go his whole life without finding out whether or not he was a coward. In a sense, OUTWARD BOUND creates wars - small, individual wars between what the student thinks he can do and what he is told to do. And somewhere amid all the pain and fear and frustration, the student gets a chance to look at himself in a new light, to see just what he is really worth and what he is capable of. He gets a chance to look into his soul.

OUTWARD BOUND is not enjoyable; it is not meant to be. Only under the pressure of fear and pain does a person get the chance for such // self-analysis. It is something you can't find in the soft routine of ordinary existence. It is something very good."

Former Student from an article in American Youth

Yellow 10/11 Another psychologist, Abraham Maslow, Toward a Psychology of Being (New York: D. Van Nostrand Co., Inc. 1962) uses the term "self-actualizing" stressing full humanness, effective behavior. The self-actualizing person has these among other characteristics:

1. He does not show an overpowering need for certainty, safety, definiteness, and order, but perceives reality relatively unthreatened and unfrightened.
2. He can accept himself, others, and the natural world without shame or hostility. //
3. He possesses a zest and enthusiasm for living and is capable of capturing "peak experiences" of living.
4. He tends to be problem-centered, not self-centered, can focus on realistic problems and solutions and work effectively in the tension of such a climate.
5. He has an air of detachment, a quality of self-sufficiency.
6. He has a degree of autonomy and self-sufficiency, so as to be relatively unaffected by flattery, criticism or the pressures of conformity.

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Green
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The techniques have been discussed earlier in the report. The basic unit of functioning is a small group, a patrol of nine, pre-selected in such a way as to provide the widest cross-section of personality possible, mixed according to temperament, age, background, race. A student in effect is thrust into a new society, a new environment, with life reduced to the simplest elements. The program is designed to maximize interaction. Shared adventure and service experiences, group problem solving activities, leadership games, frequent assessment through group discussion.

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Some of the research and theory of group process has been summarized in Saul Bernstein, Ed., Explorations in Group Work, Boston University School of Social Work, 1965. Bernstein and his associates undertook a methodical investigation of the steps in the evolution of social work groups. They point out that a developmental concept of group process, the identification of phases of growth, can have important implications for the understanding of behavior and the steps to be taken by a leader in order to handle it appropriately. The same behavior, for instance, at different points in a group's experience, may have different meanings and accordingly should be // responded to differently. (p. 12) One needs to identify and describe the kinds of problems that typically arise and the sequence in which they occur as groups come together and evolve patterns of action and interaction. Not only will such knowledge possibly speed up development, but it will provide a better basis for determining what activities are best suited for a group at what time. Furthermore, it could perhaps avoid involving groups in activities that are beyond their developmental level, because they have not had the opportunity to master the relational problems they encounter in simply coming together and staying together as a group. (p. 14)

Bernstein et al. identify five stages of development, which are somewhat parallel to the stages identified in group therapy and human relations "T" groups. Used with discretion, and accepting the fact that the model was designed for totally different groups than those of Outward Bound, the structure can be a useful tool in analyzing the process of OUTWARD BOUND.

The five stages of growth-problem levels through which members and groups as a whole pass in the course of their development are: 1) pre-affiliation, 2) power and control, 3) intimacy, 4) differentiation, and 5) separation. (p. 21).

Green
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The Bernstein study points to three important facts that have significance for Outward Bound.

a. The relationship which appears to be most significant in connection with the power-control issue and which has the greatest effect on the nature and intensity of intra-group control dynamics is that between the leader and the group (p. 31). His role during this phase is central, dominant and rather overwhelming.

He has the delicate responsibility of providing the group with enough autonomy so they can develop a sense of responsibility and control of their

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affairs, both individually and collectively. In OUTWARD BOUND this is done through non-directive instruction, letting the group learn through problem solving. At the same time he must assert sufficient leadership and authority to be able to provide help and support when necessary. Should there be affronts to his authority, as there will be with certain groups, it is vital that he remain non-punitive. At times he must protect members within the group, to forestall the development of a structure based on a pecking order philosophy (p. 33).

He has a role in clarifying for the group the existence and nature of the power-control issues. This must be done in terms of their meaning in the here and now of the group, "What's going on, right now, between us?"

Green 11 b. Program focus should be on activities that provide the opportunity for success, for safely channelled release of aggression, for physical mastery of one's own body and inanimate objects (p. 32). OUTWARD BOUND activities provide unlimited opportunities for such mastery and interaction. Rock climbing, initiative tests, group problem solving exercises such as the wall and beam, the basic expedition focusing on mountain crafts, rather than strenuous performance. But care must be taken. OUTWARD BOUND with its propensity for stress can impell groups into experiences before they are individually or collectively prepared for the challenge. The deliberate use of tension is a delicate matter which the OUTWARD BOUND leader is always faced with. He must know when his group is ready for stress, and secondly how much stress the group can withstand. There is only a hair's breadth between tension that is creative and growth-oriented, and tension that produces only frustration and hostility.

Green 14 In the OUTWARD BOUND program the experience of intimacy or affiliation is a deep and moving one. Few people have felt such warmth and affinity beyond their family. The experiences of shared adventure, difficulties overcome -- "battles won" -- William James' moral equivalent of war -- formed tight bonds of friendship.

Green 16 The stage of differentiation develops when the patrol members begin to see and accept one another as distinct individuals and to see the group experience as unique and one in which he as a person can function as an operating and contributing individual. It comes after there has been a clarification of power relationships which gives greater freedom for autonomy and intimacy, which in turn bring the confidence and freedom to differentiate, to evaluate people and situations realistically.

There is a new sense of responsibility for one another. The group is capable of greater self-organization, cooperation, planning, sustained activity, yet it is more flexible and less rigid. Shared leadership emerges, with individuals called upon, or listened to, for their individual abilities and strengths. Power problems tend to be minimized and decision making efforts are settled more often on the basis of the objective facts. There is also less need for constant activity as a vehicle for enabling interaction. Individuals may prefer just to sit around and talk, for

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they have much to share and the trust to communicate. The leader's role is to facilitate evaluation of "what's going on," and to provide feedback for growth beyond the group and after the experience.

Green 18 Bernstein also documents that this is the phase in which relating to the community and other groups becomes more natural and comfortable. More secure in their own relationship together and in the identity of their group, members typically become interested in being involved in other situations. This is a phase in Outward Bound which service seems to have the most meaning, where the closeness and responsibility developed with the group can be broadened to include the wider, faceless community.

Green 19

Separation

The final stage, separation, occurs when the basic established goals, the mission of the patrol or group, has been completed. It is a process of termination which involves re-evaluation and recapitulation of experience and personal relationships. This is a period of ambivalence, torn between moving on to new experience, reluctant to leave the positive associations of the past and the security of the group behind.

The leader's role is to facilitate the major developmental task at hand--moving apart.

The building of such bridges, even if only intellectual, may help prevent the positive group experience from being idealized as a "great time" only, like the war--an exciting experience, but unrelated to what happens later on the outside.

In OUTWARD BOUND a number of activities can be viewed as culminating events tending to promote reassessment and to build in the transfer relevant to functioning after the course. First is the solo, which if staged near the end of the course, provides an opportunity for a deep assessment and evaluation on a personal level.

Green 20 The traditional end-of-course evaluation likewise provides an option for reassessment. Instructors write a final report on each student and have a final conference with him to assess his receptivity to and acceptance of the evaluation. Students in turn are asked to give a critique of the course. A final dinner with a modest degree of formality, the awarding of certificates give a further note of finality and another opportunity for assessment. Either the director, or the students in short speeches, or the group in discussion give their opinions of the value of the experience.

Green 21 "A lion chased me up a tree, and I greatly enjoyed the view from the top." Confucius.

Lt. Theory of Service as Growth Experience
Yellow Permeating all Outward Bound programs and basic to Outward Bound Philosophy
1 is the concept of service, that variety of service, more specifically,

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which not only benefits some person or persons or the world in general, but which in its accomplishment provides a meaningful learning experience and causes personal growth in the one who discovers the opportunity to serve his fellow man.

Lt. Yellow 2 It was Kurt Hahn who so aptly said that people frequently suffer "the misery of unimportance."

John Stewart Rhoades,
The Problem of Individual Change in Outward Bound: An Application of Change and Transfer Theory. 1972. Unpublished dissertation, University of Massachusetts.

General Notes

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1 I would like to suggest that Outward Bound, in its philosophy, its goals, and its day-to-day operation, is a process for change: a process which is designed to produce certain changes in attitudes, values, and behaviors in the people who attend an Outward Bound course.

1/2 By examining the relationship between Outward Bound and theories of planned change, we may arrive at some significant understandings of how people do undergo change in a twenty-eight day course. Beyond that, by seeking parallels between Outward Bound and // theories of organizational development and human relations training, we may find concepts and strategies which can help to advance and to enrich the effect of the Outward Bound experience among staff and students.

2 I intend to use for a definition of change one proposed by Edgar Schein: "the seeking out, processing, and utilization of information for the purpose of achieving new perceptions, attitudes, and behaviors."

8 Central to the Outward Bound philosophy was and is the belief that young people, through a dramatic and intensive confrontation with nature and with themselves, can be different at the end of twenty-six days than they were on arriving at the school.

...the underlying assumption being that the student will continue to do so once he or she returns home. This dissertation will concern itself in part with this issue as I intend to establish that this assumption is often unwarranted. In order for some of the changes that have occurred in the course of an Outward Bound experience to continue after the student has returned home, this phase of the change process must receive a great deal of attention and there must be some new strategies for change developed by the organization.

9 Outward Bound is an experience which is growth-oriented and is designed to produce certain changes in participants as a result of the experiences they have during a course. The program is the result of a carefully controlled manipulation of time, staffing, equipment, and interaction with the natural environment to produce a series of situations in which certain behaviors labeled as desirable by the organization are likely to occur among the participants.

10/11 ...the Outward Bound program has four common denominators throughout the world: 1) physical conditioning and fitness: developed through running, calisthenics, long-distance swimming, and hiking; 2) technical skills: nevigation and map-reading, outdoor cooking, gathering wild foods, making

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10/ bivouacs,rock-climbing, sailing, back-packing, kayaking, solo-survival;
11 3) safety and emergency care instruction and practice: first aid, rescue
procedures, continual // emphasis on maintaining a safety-conscious
attitude; 4) group activities: "initiative tests" or group problem-solving,
fire-fighting, expeditions, service projects.

11 A typical Outward Bound course consists of a small group of 10 to 12 people organized into a "patrol," "watch," or "gang." This small group is brought together on the first day of the course and spends the next twenty-six to twenty-eight days in a close relationship with one another in a wilderness environment. With the exception of a three to four-day solo experience, all activity is organized around this basic group of people.

Ideally, the instructor practices a "withdrawing" style of leadership in which he gradually works himself out of a job as students develop skills and judgment necessary to carry out the requirements of the course. However, it is important to note that the instructor nevertheless retains responsibility for the well-being of the group, no matter how far he may have withdrawn from the leadership role.

12 (1) the stress must not be so severe as to be debilitating to the individual and (2) the individual must in fact succeed at the task. These requirements call for a program design that has elements of risk which appear greater than they actually are.

13 As students proceed through the course, stress is one of the main factors that causes them to rely on one another for support and assistance.

19 The potency of an Outward Bound course is derived in large measure from its simplicity.

It is important to observe, however, that simplicity in Outward Bound is more apparent than real.

Rock-climbing is an art that cannot be mastered within twenty-six days, yet the challenge of rock-climbing can be experienced within that time:...

20 In almost every phase of the Outward Bound process there is a commitment to action, to doing. The prevailing value is on doing something and discovering, rather than talking about it and hypothesizing.

21 Confrontation at Outward Bound is central to the change process, a point which will receive a great deal of attention in the next chapter.

25 Outward Bound, both to try to change this behavior and to counteract the "cult of toughness" that many people associate with Outward Bound, tries to provide opportunities for people to show compassion to others in an easy, natural way that arouses little or no embarrassment or attention.

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Page 37/38 In order to increase the chances that behavioral change will remain in a student after the // course, the full dimensions of the process of change in Outward Bound must be understood; transfer, or the stabilization and integration of the change into the student's day-to-day life, must be a constant focus for the staff throughout the course.

44 I view almost all of this research as corroborative, that is, it provides statistically significant evidence of the changes that Outward Bound staff have found through intuition and subjective observation.

50 An absolute necessity, then, is that Outward Bound - both at the policy-making level and at the individual instructor's level should engage in thorough and constant value clarification and labeling.

54 I have allied myself with those theorists who maintain that human behavior is, in large measure, situationally determined. Thus, a person behaves as he does during an Outward Bound course as a result of the experiences the staff have designed for his group. The socialization effect is increased by the fact that the group exerts pressure on its members to conform to norms that have been established for and by them. In addition, the effects of any change strategy which is implemented in isolation from the individual's home environment will be subjected again to those same pressures upon his return and he will be urged to resume his previous patterns of behavior. The problem of maintaining change is further complicated by the lack of clear goals for change and the difficulty of measuring success at those goals. I do not believe that we as yet possess research tools sophisticated enough to measure behavioral change effectively, nor are theories of personality change sufficiently developed to offer background for this research. Finally, whenever a change strategy is implemented, some important value-related issues are raised which must be dealt with effectively by those who are in the position of influence.

71 ...since disconfirmation may produce the threat of having to change, and a large amount of disconfirmation may run the risk of "closing off" the student to further learning, an Outward Bound course should be designed and scheduled in such a way as to move as quickly as possible from the disconfirming or unfreezing stage to the changing stage. But, since disconfirmation occurs at many different points in the course, and one person's disconfirmation may be another's confirmation, the instructor and the course planners must be flexible and ready to move quickly towards conditions of change and psychological safety.

73 What I am arguing for is a balanced course that does have a fair amount of disconfirmation, but also provides acceptance for the fact that individuals are in the middle of a change process (for some it may mean some major personality and behavior change) and that support for those changes is vital or else they will not be attempted.

89 What I have said, then, argues strongly for creating conditions, not of defensive identification, but of positive identification, in which

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the student can combine what effective behaviors he sees around him with his own personality in a way that is spontaneous and natural for him.

101 f. All the above suggestions lead to the final conclusion that the instructor should be highly skilled in group process, perhaps as the result of human relations training.

103 This chapter will concern itself with the final and most critical stage of the change process, that of refreezing the change. The main concern here is to stabilize and to integrate the change in the change target and to increase the chances that he will make use of the new behaviors, attitudes and perceptions that he has learned during the Outward Bound course. It is this process that will be referred to as the transfer of learning, or simply, transfer.

With the exception of some post-course activities found in connection with Outward Bound Schools in the United Kingdom, there is little real evidence of programmatic concern in Outward Bound for the issue of transfer. Far more attention is paid to what happens during a course than to what the student is able to take home with him in attitude and behavioral change. That transfer is becoming a concern of Outward Bound is clear from the direction research is beginning to take as more and more follow-up studies are being done.

147-149 See extract which follows.

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A. The following is an overview of the principal concepts developed in this paper:

1. For a number of reasons, Outward Bound can be characterized as a process for individual change, in the areas of attitudes, perceptions, values, beliefs, and behaviors. Those reasons include the historical background of the organization, its own philosophy and goals, and its educational processes. Thus it shares a number of characteristics with other processes of change and can benefit from an examination of parallel concepts from change theory and the behavioral sciences.

2. Changing those human factors mentioned above is a difficult task because there are a number of powerful and inherently conservative forces operating to maintain the status quo. These include psycho-sociological pressures such as situational determination of behavior; reinforcement from one's own peer group; the limitations of one's own self-image; and a lack of support for changed behaviors.

3. The process of change is further complicated by the lack of precision research instruments to identify and measure significant change in an individual. This is especially true in the Outward Bound change process where changes may be subtle in nature and may not become apparent until quite some time after the experience.

4. By examining the Lewin-Schein three-step model for change, it is possible to draw parallels to the Outward Bound educational method. The steps of unfreezing, changing, and refreezing occur at a number of points in an Outward Bound course.

5. The role of the instructor is the key to the establishment of supportive conditions for change involving psychological safety and trust. The instructor provides a role-model which is central to the process of change as students use him or her to identify with during periods of uncertainty.

6. By its one-time nature, Outward Bound can have little or no effect on its graduates once they leave the course except through the changes a person has chosen to take with him and wants to keep. It is likely that, upon returning home, students undergo a change cycle involving the same stages of change as they went through at Outward Bound.

7. The change processes of Outward Bound are concentrated mainly on the first two stages, unfreezing and changing, and very little on the third stage, refreezing or transfer. I have presented a number of strategies and accompanying rationale for increasing the chances that transfer will occur after the Outward Bound course is completed.

8. Central to the process of change I have described at work in Outward Bound is the necessary function of goal-setting by the student before the course and for a period of time after the course is over. Goal strategies may assist the instructor in bringing about change and may help the student to maintain the changes he wants once the course is over.

9. Outward Bound planners in the past have traditionally favored direct experience over theoretical input. This dissertation is an attempt to alter that relationship.

Mary S. Richards,
"Two Exploratory Studies of West High School Students at Colorado Outward Bound School 1964 and 1965." Unpublished paper.

General Notes

A series of questionnaires were administered to all of the boys in C-11 on the first day they arrived at the school and again on the final day. These were rating scales in which they were asked to rate themselves from a number of points of view and a more complex instrument known as a semantic differential which arrives at a person's sense of himself in a less obvious but more sensitive manner. Summarized briefly, these questionnaires indicated that there had been a substantial strengthening of the self images of the great majority of the young men who went through the course. In spite of their very evident physical exhaustion on the last day, most of them did feel themselves more capable, worth-while people than they had when they began the course 28 days previously. A few of the boys showed a remarkably poorer concept of themselves than they had at the start. The material obtained in individual interviews suggested that this change might well reflect a more accurate self appraisal than the boys had at the beginning. Outward Bound had apparently been instrumental in making these boys take a more objective look at themselves in comparison to others.

On the basis of the results of the rating scale, I selected three boys who scored very high in self concept and three who rated themselves at the lower end of the scale. I interviewed these six boys in some depth both at the beginning and end of the course. I also followed this with an open end type questionnaire which I sent out six months after the end of the course.

The second summer, we decided to look into the possibility of measuring change in school performance in a group of boys who attended Outward Bound as compared with a similar group who did not.

The boys selected for this second study all were in attendance at West High School in Denver. All of them had expressed an interest in attending Outward Bound and had requested applications. At the time of the first series of interviews, May and early June of 1965, it was not certain just who among them would actually be going to the school. I interviewed some thirty boys that spring. I tried to ask each of them substantially the same questions in an effort to find out something about their picture of themselves, their ambitions and their expectations of what their performance would be, both at Outward Bound and at school the following year. I also asked their teachers to make some predictions about their performance in each case. It turned out that for various reasons only seven of the original group actually completed one of the Outward Bound courses during the summer. Each was evaluated by his instructor and by himself.

At the end of the first semester of the 1965-1966 school year, the assistant principal from West High and I chose seven boys from the original thirty whose backgrounds and general characteristics most closely matched those of the seven who went to Outward Bound. This latter group served as a control. All of the boys were then interviewed again and their teachers asked to rate them from the point of view of academic performance, motivation, peer relationships etc. Their school records were examined in terms of grades, attendance, and participation in extra-curricular activities. Any unusual circumstances like problems with infractions of the law were also noted.

The conclusions to be drawn from this second piece of research seem to be two-fold. First, given similar encouragement and information, boys with stronger self images and more outgoing personalities will manage to enroll themselves and participate in Outward Bound than boys whose self confidence is not as strong. Second, the results of the program appear to be felt more in areas of social functioning than in academic pursuits.

As was indicated at the beginning of this report, the difficulties of measuring in finite terms the effect of a program like this on a given group of boys are many. I would also raise the issue as to just how necessary it is that this be measured at all. If the great majority of the boys who attend the school see this as having been a valuable experience to them and feel that one way or another they are using the insights and skills they gained, this is perhaps sufficient. The gains may be more internal than external, and it could be that the urge to define precise results fails to take into account the long term, subjective changes which occur.

Seymour Kenneth Robbins, Jr.,
Outdoor Wilderness Survival and Its Psychological and Sociological Effects Upon Students in Changing Human Behavior. 1976. Unpublished dissertation, Brigham Young University.

General Notes

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1 Outdoor Survival in the twentieth century was originally organized to teach outdoor survival skills, but has since proven to be a valuable instrument for therapeutic or rehabilitative change for young people with academic problems, drug addiction and bad behavior. In addition, Outdoor Survival is assisting the healthy person to find his or her identity, improve interpersonal relationships, set goals and assume adult roles and responsibilities.

Outdoor Survival at Brigham Young University has as one of its objectives "to produce positive behavioral changes" within its participants. Subjective reports indicate that during the first several weeks following a survival experience, students experience a significant drop in the effectiveness of their social and psychological functioning. This is followed by a gradual and apparently difficult return to improved functioning...

2 The three purposes of this study were: (1) to determine whether certain behavioral changes do take place within an individual during a 28-day Outdoor Survival experience, (2) to determine whether there is a significant change in the psychological and social functioning of survival students during the experience, immediately after, and for a period of 30 days thereafter, and (3)to apply therapeutic treatment to a group of participants to determine what effect it has upon the individual's social and psychological functioning following their return home.

3 1. Youth Adventure Series - A ten-day survival experience for boys and girls aged twelve to sixteen covering survival skills, mountaineering, and exploration.

2. Wilderness Adventure - Designed for the person desiring an experience in nature but not the rigors of an extended program. The program gives the participant a concentrated outdoor experience for eight days.

3. Youth Leadership 480 - This is a thirty-day outdoor experience. The first two days of the course are spent on the BYU campus with the actual in-field experience divided into five main areas of emphasis.

   a. Impact - Each student becomes adjusted to the environment through three days of rigorous hiking.
   b. Group Expedition - Men and women are put in separate groups; each group, with instructor assistance, follows a prescribed route to a common destination.
   c. Survival Week - Emphasis is placed on primitive outdoor survival skills.
   d. Student Expedition - Students are organized into small groups and given specific routes to follow to a common destination.
   e. Solo - Each student spends from four to five days alone in a selected supervised area.

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During this course students are given basic food packs consisting of such items as flour, sugar, cracked wheat, oatmeal, honey, vegetables. Students gain a knowledge of how to live off the land through instruction and demonstration. Students also have the opportunity to learn several survival skills, including primitive fire building, trap and snare construction, plant identification, orienteering, shelter construction and other general survival techniques.

The course is conducted in the mountains and canyonlands of southern Utah where students hike from Green River to Escalante, traversing 250 miles of alpine and desert terrain.

13/ 14 **Hypotheses**

Previous research, just reviewed, of the effects of OS upon "self-concept," "attitudes," and behavior, warrant directional hypotheses concerning the relative impact on OS students and personality change. For the purpose of testing these hypotheses an assumption of "no difference" is made.

The hypotheses are:

1. Self-reported perceptions of students who participate in a 30-day OS experience will find that their identity, self-concepts, self-satisfactions, behavior, physical-self become more positive from the beginning to the end of the experience as determined by the Tennessee Self Concept Scale.

2. Students who participate in a thirty-day Outdoor Survival program experience a significant drop in effectiveness of their psychological and social functioning immediately following their return home from Outdoor Survival as determined by the Survival Conflict Scale. //

3. Therapeutic treatment using the principles of Frankl's Logotherapy administered to students prior to, during and following OS will facilitate the maintenance of positive changes incurred through OS following the students' return to conventional society.

4. Behavioral changes as measured by the Chamberlain Adjective Completion Scale can be as significant for OS students as for students enrolled in an eight-week therapy program designed to reduce "Self-Defeating Behavior."

5. There will be a significant positive correlation between a person's self-concept, value system, and achievement motivation, and the degree of difficulty in readjusting psychologically and socially following Outdoor Survival.

20 **Definitions**

1. Hereafter, "Outdoor Survival" is referred to as OS, and

2. "Outward Bound" is referred to as OB.

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3. PIL -- Purpose in Life Test.

4. TSCS -- Tennessee Self-Concept Scale.

5. MEGA -- The Motivation, Ego, Goal, Achievement Theory, which substantiates the phenomenological point of view that adjustment depends primarily upon the individual's concept of himself.

6. SCS -- Survival Conflict Scale developed for this study to measure social and psychological conflicts encountered one to thirty days following survival.

7. CACS -- Chamberlain Adjective Completion Scale. An instrument used to measure changes in self-affect, perceived characteristics and internal control in relationship to participation in the Winter, 1974 Eliminating Self-Defeating Behavior Workshops.

8. GATS -- A five point scale developed to determine differences in attitude towards OS between participants. This instrument is modeled after the Guttman format.

9. ESDB -- Eliminating a Self Defeating Behavior.

10. Ss -- Subjects.

11. MAD - Modified --- Dolittle.

12. SPSS -- Statistical Package for the Social Sciences.

21 Two OS groups (Section U-32 and U-33) were selected for study from the Brigham Young University Youth Leadership 480 Program. Each group comprised eighty or more students who had voluntarily signed up for OS, anywhere from five months to one week prior to departure (See figure 2).

The age differentials of the two groups varied widely and included participants as young as fifteen and as old as fifty-six. The mean age of U-32 was 20.63, and the mean age of U-33 was 20.84.

Participants came from a wide variety of backgrounds.

23 Not all of the subjects in the experimental and control group were administered both pre- and post-tests during the period of experimentation. The rationale behind this was to prevent "test-wiseness" and to check any significant differences between those who had taken the pre-tests against those who had not.

1. The Tennessee Self-Concept Scale - Clinical and Research Form (Fitts, 1965), (hereafter referred to as the TSCS) -- The TSCS was used to obtain a measure of the various dimensions of self-concept and consists of 100 self-administered items. Ninety of the items describe three facets

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of the self: (1) identity -- what he is, (2) self-satisfaction -- how he accepts himself, and (3) his behavior -- how he acts. Each of these dimensions of the self is described in terms of the physical self, the moral-ethical self, the family self, and the social self.

24 The ten items called the Self-Criticism Scale (SC) were selected from the L-scale of the Minnesota Multiphasic Personality Inventory and are statements of faults which most persons agree are characteristic of themselves. Excessive denial of these statements indicates a high level of defensiveness and/or possible misrepresentation of self in response to the other self descriptive items.

25 2. The Purpose in Life Test (Crumbaugh, 1969) (hereafter referred to as the PIL) -- Only seven references were listed in Buros of previous use of this instrument; however, for this experiment in self-concept, the PIL is a logically-keyed attitude scale as an intended measure of Viktor E. Frankl's concept of "existential vacuum:" i.e., a failure to find meaning and purpose in life.

26 In view of the lack of reliability and validity, the PIL must be used with caution; however, the PIL has been viewed "as an interesting and promising tool," and "a worthwhile instrument to consider." Perhaps with careful analysis and integration, the PIL can become a legitimate instrument for incorporation into the main stream of psychological research.

27 3. Chamberlain Adjective Completion Scale (Chamberlain, 1974), (hereafter referred to as the CACS.) -- The CACS consists of a two-part "dislike" and "characteristic" scale and is used in the ESDB Workshop for an ongoing counseling center program at the BYU Personal Development Center. The goal of the ESDB workshop is "to increase clients' control over their own lives, and thus enable them to eliminate socially and/or personally unacceptable behavior" (Becker, 1974). The "dislike" scale is composed of 33 adjectives which the subjects decides he "likes" or "dislikes" about himself and is designed to tap general affective changes that occur over an eight week period.

4. Survival Conflict Scale, (hereafter referred to as SCS.) -- This scale was developed to assess the degree to which students felt hostility, anxiety, and frustration following their return home from OS.

28 5. Attitudes Towards Survival, (hereafter referred to as GATS) -- This scale was developed with the assistance of Evan T. Peterson, Director of the Survey Research Center at BYU. The approach was modeled after the Guttman Scale and its primary purpose was to establish the difference in attitudes towards OS of participants versus non-participants.

6. Personal Data Sheet (Lambert, 1975) - These are (1) Group Identification, (2) Personal Identification, (3) Age, (4) Sex, (5) Marital Status, (6) Year in School, (7) Current Grade Point Average, (8) Church Affiliation, (9) T-Group Participation, and (10) Professional Counseling.

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31 Plans for securing a stratified, randomized control group were drawn up immediately after section U-33 had departed for the OS experience. Help from the BYU Survey Research Center produced more than 240 names of students registered for summer term on the campus with the same ages, marital status, religious affiliation and sex as the 85 students registered in U-33. A much larger sample than actually needed was furnished since only a portion of those contacted would be available or willing to participate.

Approximately one-sixth of the list responded favorably on the first contact and appeared at the test site located in the HRCB on the BYU Campus. Second and third calls to those who said they would come but didn't produced another one-sixth, providing a total of 78 participants.

32 To test hypothesis 1, the estimated means of OS groups U-32 section A & B, U-33 section B, and the control group were compared on the basis of gains obtained from the post minus pre scores of the TSCS. An analysis of gain between the post minus pre-testing for each dependent variable was performed using the SPSS and MAD, to compare the relative effectiveness of OS versus the control group.

To test hypothesis 2, the data from the SCS were analyzed and those OS subjects who scored two or more answers in extreme areas were placed in a group labeled "conflict."

32/33 To test hypothesis 3, the post-pre scores of OS group U-33 section A & B, and the control group for the CACS were compared for any significant gain. Also, the PIL scores for the above mentioned groups were compared both in regards to gain from post- // pre (U-33A & B) and as a total mean score comparing U-33 A & B with the control group score.

33 To test hypothesis 4, the gains (pre-post scores) from the CACS between OS groups U-32, U-33, and the control group were compared for significance. Only 10 of the 33 variables with the most significance registered on the CACS "Dislike Scale" were examined, because of time limitations. When significant differences appeared in seven of the ten variables (adjectives) examined on the "Dislike Scale," these were compared with similar variables (adjectives) reported in an unpublished paper from the BYU Development Center (Becker, 1974).

To test hypothesis 5, the total post scores of each OS subject were added and compared for the "conflict" and "non-conflict" groups. A number halfway between the two significant means was set to determine a numerical level at which subjects may require remedial help following OS.

37 The only area in which there was no significant difference in the TSCS occurred in the number of deviant signs (NDS). The NDS score is an empirical measure that is simply a count of the number of deviant features on all other scores. Subjects identified later in the OS "conflict" group may show significant differences in their NDS scores from the norm, thus

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supporting the TSCS and the SCS as valid instruments. According to Fitts, the NDS score "... is the Scale's best index of psychological disturbance. This score alone identifies deviant individuals with about 80 percent accuracy" (Fitts, 1965a).

39/ 45 Abnormal behavior appeared to be not so much the result of OS but that the subject // had discovered a new value system and was having difficulty in communicating in terms satisfactory to the parent or peer group.

54 Comparisons made between the estimated mean scores (post-pre), using the "Dislike" CACS, show no over-all significant difference between OS U-33 A & B and the control group. However, when comparing the OS group's post-pre scores separately for each variable (adjective) tested, the change is significant for seven of the ten selected. By means of these (post-pre) differences, the individual's acceptance of himself in regard to the adjectives accountable, calm, clever, confident, optimistic, purposeful, and worthy changed significantly. ($p < .0001$ to .0433). There was no significant difference or change in feelings of ambition, studiousness, and competitiveness (see Table 8).

57/ 59 Summary of Results

Standardized test results, which compared post-minus-pre measures of self concept and behavioral factors of OS Ss, did produce estimated mean score changes that reached the .05 level of significance. The .01 and .001 level of significance was also found occasionally within the data.

On each of the 11 scales of the TSCS, the mean gain indicated a movement toward a better integrated personality configuration. The only change in a negative direc- // tion was the self-criticism factor. More importantly, the characteristics of total positive and self-satisfaction jumped dramatically. One would expect an OS experience to affect more dramatically the physical self which is the individual's view of his own state of health, physical skills and endurance. This may reaffirm that OS is more than just a program for teaching OS skills but also a program for rehabilitation and improving self-esteem.

Results also indicated a significant number of Ss who have a difficult time following OS in readjusting to society. These problems are not pathological but rather related to value change and the Ss hesitancy to readjust to an old life style. Much of the frustration expressed was "falling back into the old rut," and a desire on the part of the Ss to try and keep the peak experiences found while in the wilderness.

Results from tests of Hypothesis 3 are inconclusive and must be left for another study where several variables can be controlled.

Estimated mean scores of CACS, although not significantly different when compared to the control group, do compare favorably with gains made of Ss within an ESDB workshop.

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Page 64 Results of Hypothesis 4 statistics were not surprising when it was learned that there was no significant difference in the estimated mean gain of ESDB subjects and the control group. Estimated mean gain for the CACS instruments is likely to occur when used with any experimental and control group. Perhaps other acceptable and valid instruments could be used in both ESDB workshops and OS to further substantiate or disprove this hypothesis. Other tests also need to be run to determine the strength of the gain and longevity in changing human behavior.

68/69 1. Self-reported perceptions of students who participate in a 28 day Outdoor Survival experience will find that their identity, self-concepts, self-satisfactions, behavior, physical-self, become more positive from the beginning to the end of the experience when considering: (a) the profile scores of the Tennessee Self-Concept Scale (TSCS), (b) the estimated mean gain scores of the Chamberlain Adjective Completion Scale (CACS), (c) the estimated mean gain scores of the Crumbaugh Purpose in Life Scale (PIL).

2. Students who participate in a 28 day OS program experience a significant drop in effectiveness of their psychological and social functioning immediately following their return with respect to: (a) extreme answers (2 or more) within the Survival Conflict Scale (SCS), (b) a significantly lower (P) score on the TSCS, (c) a significantly lower estimated mean gain score (post-pre) on the PIL.

3. Therapeutic treatment administered to students prior to, during, and following OS will facilitate the maintenance of positive changes incurred through OS following the students' return to society through: (a) a significantly higher estimated mean gain on the TSCS, (b) a significantly higher estimated mean gain on the PIL.

4. Behavioral changes can be as significant for OS students as for students enrolled in an eight week therapy program designed to reduce a Ss "self-defeating behavior." This hypothesis was tested with respect to: (a) significant estimated mean gains on the CACS (post-pre), (b) comparable estimated mean gains with scores of students enrolled in a BYU Self-Defeating Behavior Workshop (SDBW) (pre-post scores).

5. There will be a significant correlation between a person's self-concept, value system, and achievement motivation, and the degree of difficulty in readjusting psychologically and socially following OS with respect to: (a) the total number of points scored on the TSCS post (P), (b) the total number of points scored on the post CACS, (c) the total number of points scored on the post PIL scale.

The sample for the study was drawn from two BYU OS Groups, U-32 and U-33, scheduled during the spring and summer of 1975. Subjects included the entire pop- // ulation of the two groups and totaled 167 initially registered. The control group was drawn from the entire student body

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69 registered summer term on the BYU Campus and included students registered for English as a Second Language Program and BYU Summer Youth Programs. A few 15-year olds not registered on the campus were selected to make up the number needed to match the 15-year old OS population. Control subjects responded to an invitation by phone or by mail to participate in an OS experiment. Seventy-eight Ss responded and took the pre-tests while only 57 returned to complete the post tests. Participants from the control group were selected as closely as possible to match the same sex, age, marital status and religious affiliation to control for each factor in the analysis of variance. Six of the control group which failed to return for the post tests were foreign students who had left the country before they could be contacted for post testing.

Pre and post testing included the TSCS, PIL, and the CACS. Post testing included the SCS and the Guttman Attitude Towards Survival Scale (GATS).

Self-concept and Personality Factors - A 28-day wilderness experience has value in increasing the self-concept of participants. All 11 subscales of the TSCS examined showed gains in a direction of increased self-concept and self-esteem.

Mean gains (post-pre) would lead us to the conclusion that: (a) High self-criticism scores are moving OS Ss into a new value system and Ss now find it easier to accept negative concepts about themselves; (b) High total (P) scores indicate that subjects reflect a more positive view of themselves; (c) High self-satisfaction scores reflect that Ss feel significantly better about the self they perceive and that they can more readily accept themselves as they are; (d) High behavior scores indicate Ss have brought their perception of their own behavior more in line with the way they function.

70 Purpose in Life -- Subjects returning from a 28-day wilderness experience find life afterwards less exciting and challenging. They can, however, see more clearly their reason for existing and find life more meaningful. They see a mission or purpose in life. A significant number have discovered more clear-cut goals and, in general, find life over all more satisfying than before OS ($p. < .05$).

When compared with the national norms, OS Ss PIL post scores are higher than successful businessmen and professionals, active and leading protestant parishioners and college undergraduates.

OS improves self-actualization or selfhood, through Ss improved ability to communicate not only with others but with themselves through an inner dialogue. There may be no better counterpart in psychotherapy than OS to move as many Ss simultaneously into a better understanding and appraisal of themselves with such complete freedom.

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70/ 71 Survival Conflict -- As a group, the Ss were found to be generally successful in readjusting socially and psychologically following OS. The large number of Ss who verbalized problems (74 percent) re-emphasizes that making the transition from OS to normal living is not always easy. Those Ss who scored two or more answers in the SCS "conflict" areas could also be identified on the basis of their low TSCS (P) scores and attitude towards O.S. // Subjects who have the more serious problems in adjusting following survival (35 percent) also scored consistently lower in each of the other personality variables studied. It appears that low gain scores are a fairly accurate predictor of readjustment problems.

72 Logotherapy and OS -- The application of Logotherapeutic principles in OS seems to have little effect in the gain scores and solving problems during and following OS.

ESDB Workshops and OS -- Personality factor change can be as significant in OS as it is in ESDB workshops when compared together.

Control groups also show significant personality change when administered the CACS.

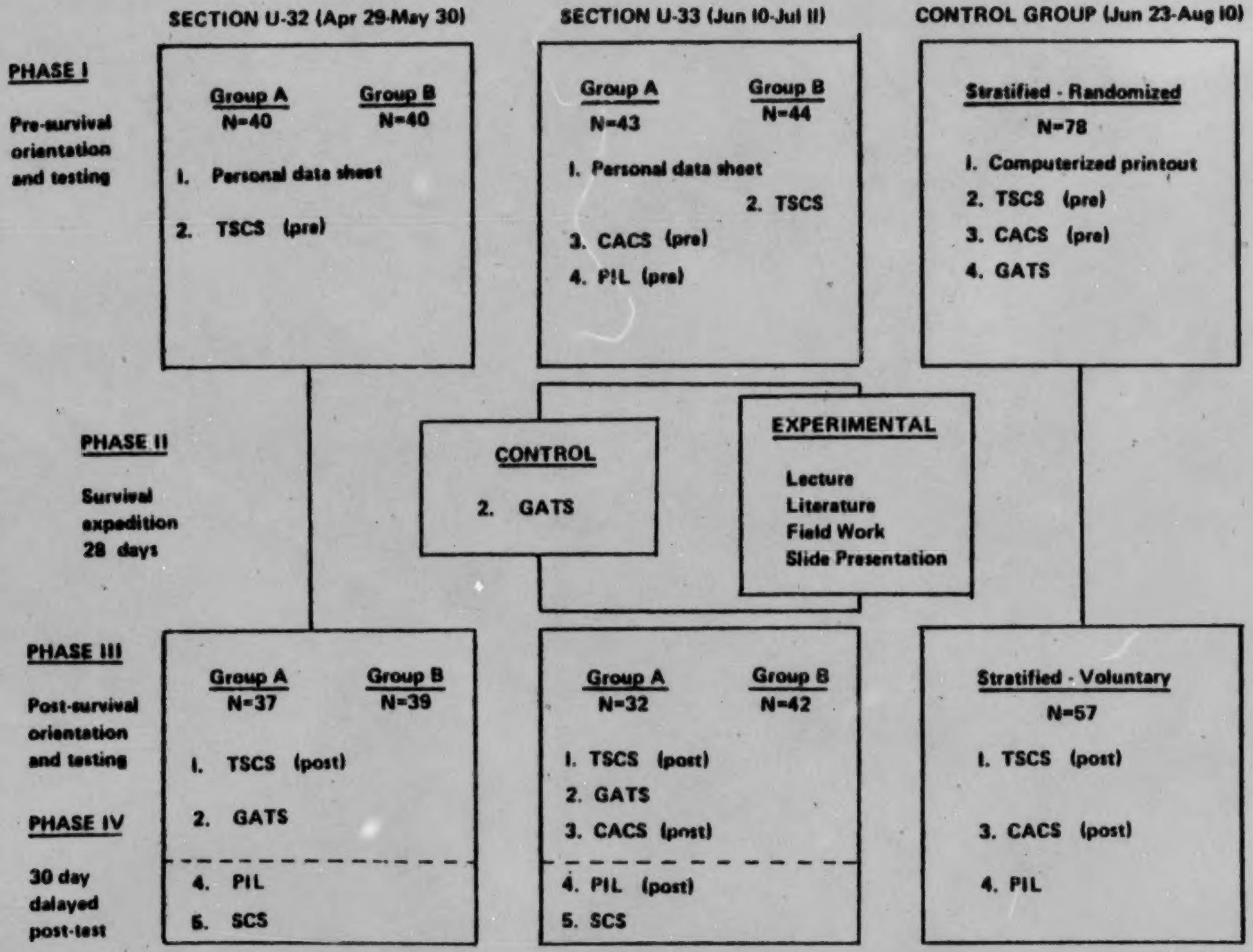
SECTION U-32 (Apr 29-May 30)
SECTION U-33 (Jun 10-Jul 11)
CONTROL GROUP (Jun 23-Aug 10)
PHASE I
Pre-survival orientation and testing
Group A N=40
Group B N=40
1. Personal data sheet
2. TSCS (pre)
Group A N=43
Group B N=44
1. Personal data sheet
2. TSCS
3. CACS (pre)
4. PIL (pre)
Stratified - Randomized
N=78
1. Computerized printout
2. TSCS (pre)
3. CACS (pre)
4. GATS
PHASE II
Survival expedition 28 days
CONTROL
2. GATS
EXPERIMENTAL
Lecture
Literature
Field Work
Slide Presentation
PHASE III
Post-survival orientation and testing
PHASE IV
30 day delayed post-test
Group A N=37
Group B N=39
1. TSCS (post)
2. GATS
4. PIL
5. SCS
Group A N=32
Group B N=42
1. TSCS (post)
2. GATS
3. CACS (post)
4. PIL (post)
5. SCS
Stratified - Voluntary
N=57
1. TSCS (post)
3. CACS (post)
4. PIL

FIGURE 2

Research Model - Outdoor Survival
Youth Leadership 480

Harold M. Schroder and Robert E. Lee,
Final Report: Effects of Outward Bound Training on Urban Youth. 1967.

General Notes

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1/ The aim of this paper is to evaluate the short term effect of Outward
2 Bound training for a group of inner-city youths in Trenton, New Jersey.
The assumption underlying this study is that if the training program accomplishes its goals, changes in student attitudes in the above attitudinal domains should be apparent and measurable immediately after the program. If these characteristics persist following the training program, increments in grades would be expected to follow at some time in the future. This report does not cover these // longer term expectations.

2 The theoretical rationale underlying this evaluation study is specifically based on the concepts of interest and attitude development in Schroder, Driver, and Streufert (1967). It is closely related to the work of Piaget (see Flavell, 1963) on conceptual development; May (1967), Erikson (1950) and Evans (1967) on identity; Sherif (1957) on social norms and ego development; Cantril (1967) on motivation; and McClelland *et al*. (1953) on the achievement orientation.

3/ That is, it involves not a blind persistence, but a flexible goal
4 orientation accompanied by a consideration and // reassessment of all
factors involved.

7 From a psychological standpoint, Outward Bound training embodies the following:

(a) The simulation of a series of ego relevant, optimally challenging problem environments.

8 (b) The utilization of the concept of "superordinate goals" as a pedagogical technique.

..."superordinate" goals — those things he wants but cannot achieve alone.

(c) The occurrence of success as a consequence of persistent efforts to overcome barriers through mutual participation.

Outward Bound training purports to achieve an increase in motivation through the development of self respect. This development is accompanied by self-confidence, a greater sense of accomplishment, a greater capacity for leadership, and opportunity for success.

9 From the psychologist's viewpoint, the proposed effects of Outward Bound training may be summarized as follows:

(a) An increase in motivation, including the internalization of achievement standards which act as signposts for making more interrelated

Page 9/10 realistic choices and judgments; greater spontaneous interest and activity in certain aspects of his world (study, recreation, leadership) and greater persistence in the face of barriers.

(b) An increase in the ability to perceive and take an interest in the other person's point of view. This includes the development of feelings of reciprocity in interpersonal relations.

(c) An increased sense of self identity. This includes feelings of worth, being a part of one's society, and a growing conception of the self as a causal agent in shaping the future.

(d) An increase in the ability to see oneself from others' perspectives, to take an active interest in experiencing // and processing new information about oneself.

10 In this Trenton program, Outward Bound principles are used therapeutically in an attempt to inculcate achievement standards in, and to develop the self image of, the lower-class, non-achieving urban high school student. Two characteristics make "Action Bound" unique: (a) it is the first urban-based program explicitly organized around Outward Bound training principles; (b) unlike most programs designed to aid the lower-class student, it does not comprise a series of "isolated experiences" (Sherif and Sherif, 1964). Action Bound is based in Trenton Central High School, a comprehensive institution with an enrollment of approximately 4,000 students.

12 Subjects:

The basic experimental group was comprised of 40 lower-class, non-achieving urban high school students. These were males between 16 and 18 years old, recruited by the program directors or referred by school authorities. Forty more students were selected as a control group on the basis of school records, each boy in the control group matching an Action Bound student with regard to age, written comments on deportment and motivation, year in school, and intelligence (a student was considered a "match" if his IQ was within 5 points of that of the Action Bound member).

13 Procedure:

Eighty-five students were administered a carefully designed and theoretically relevant assessment battery (described below) upon entry into the Action Bound program. These members were told that Action Bound, as a service organization, had agreed to cooperate with Princeton University in an investigation of "cognitive development." Eighty-five matched control students were also tested at this time (these boys were told that Trenton High School was the cooperating agency).

Between 5 and 6 months later all students were tested again. Because of their failure to participate in the program, 45 members of the experimental group were excluded from the sample at this time, as was the matched

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control student for each: a few students were no longer in school, many more had dropped out of the program after attending one initially tempting winter expedition (skiing), and others, while still members of the program, evidenced an extremely low level of participation.

14 The maximum time needed for battery administration was two to three hours.

This battery utilized a wide range of psychological techniques which have been explored and found useful in evaluating the effects of similar programs. All major types of measurement are represented: (a) Projective methods, (b) Questionnaires, (c) Mathematical scaling and multidimensional scale procedures, (d) Semantic differential measures, (e) Behavioral ratings, (f) Self reports. As indicated in the introduction to this paper, four domains are being evaluated, those of: (1) Achievement Orientation, (2) Peer Relations, (3) Identity, and (4) Self-reassessment. Each variable is assessed by at least two classes of measurement as a cross-check.

18 We deemed it advisable to include a survey of what the students themselves thought of the program. Analysis of students' perceptions: (1) provides feedback which may be helpful for future programs, and (2) may contribute to our understanding of the observed results of the present program. For this purpose, a 78-item schedule (Appendix B, p. 92) was utilized to provide a general survey of Action Bound along seven important dimensions: (1) Group Harmony - Conflict; (2) Staff Harmony - Conflict; (3) Student Autonomy - Control; (4) Acceptance and Warmth - Rejection and Aloofness; (5) Promotion - Demotion of Positive Self-Concept; (6) Organizational Flexibility - Rigidity; (7) Sensitivity - Insensitivity to Individuation. This survey was developed by David E. Hunt and Robert Hardt and was used to characterize students' perceptions of Upward Bound program environments (Hunt and Hardt, 1967).

22 See Figure 1 which follows.

26 Achievement orientation was measured by four methods varying from student self-reports of aspirations to behavioral ratings of students by teachers. The following measures were made for Action Bound and control students before and after the Action Bound program:

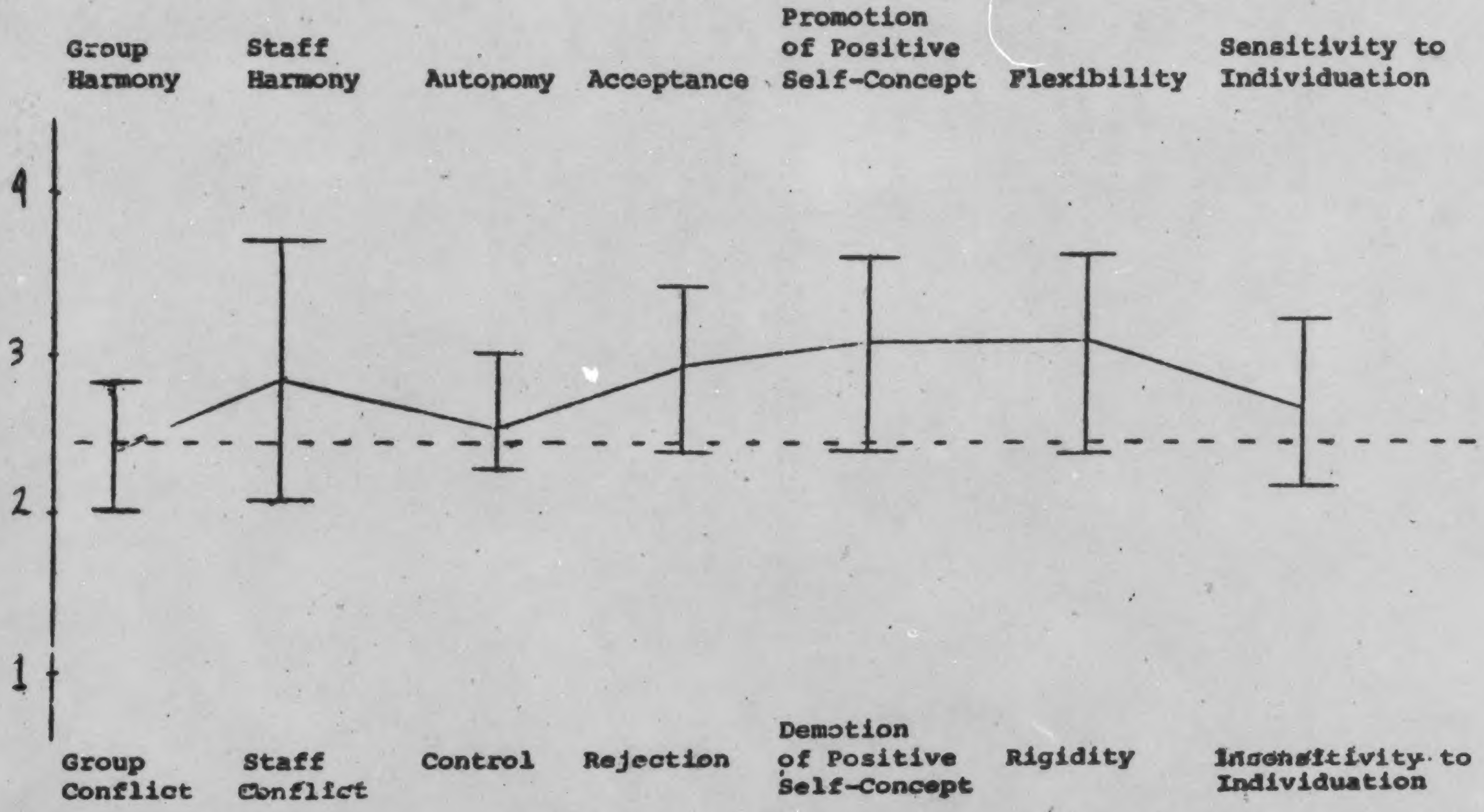
(1) Level of occupational aspiration.
(2) Persistence in goal orientation.
(3) Flexibility of occupational means-ends orientations.
(4) Teachers' ratings of achievement orientation.

In this section, the results of each of the above will be summarized in turn.

27/
28 (c) Results: The level of aspiration scores based on students' lists of "things you would like to be doing three to five years after graduating from high school" is presented in Table 2. Both Action Bound and control students raised their // occupational aspirations significantly over the five month period, indicating that this increase cannot be attributed to Outward Bound training.

Figure 1

Student characterization of Outward Bound Training along 7 dimensions. (Mean values are connected by the horizontal line. The vertical brackets denote the interval within which 68% of the students fall.)



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31 (c) Results: As may be seen in Table 4, no significant differences were found for either the Action Bound or control students between pre- and post-test scores representing the willingness to work hard in pursuit of success.

33 (3) Flexibility of Occupational Means-Ends Orientations.

(a) Method of measurement: Up to this point, we have paid a great deal of attention to what the students are thinking. A variable of greater importance is how a person thinks.

33/ 34 (c) Results: The results of this analysis are set // out in Table 5. The positive change in the flexibility score derived from Action Bound students' "Reasons for Main Goal" almost reaches significance at the .05 level. The rather substantial drop in score by the same students on the information search question is quite possibly due to a lack of motivation to do well on this question during the final testing session. It will be noted that this drop occurred in both the Action Bound and control groups. Action Bound's "Means of Attainment" performance improved, but not significantly.

36 (c) Results: Teacher ratings of the Achievement Orientation of Action Bound students showed a significantly greater increase than the same ratings for control students (Table 6).

38 Changes in Reciprocity and Interpersonal Participation

In this section, we assess the student's ability to perceive and to take an active interest in the other person's point of view. This capacity provides a basis for the development of mature interpersonal relationships, citizenship and learning via participation. Procedures including a wide range of scaling techniques, various types of self-report, and teachers-ratings were utilized to make the following measures:

(1) Positivity of Person Perception.
(2) Behavioral Ratings of Peer Relations.
(3) Extent of Interpersonal Trust.
(4) Capacity to Generate and to Entertain Alternate Perspectives about Others.

(1) Positivity of Person Perception.

39 (c) Results: At the end of the program, the Action Bound students described these two groups of stimulus persons as being more positive than did the control group. The increase in their average rating of "Most Kids" is statistically significant (Table 7).

41 (2) Behavioral Rating of Peer Relations.

(c) Results: As is seen in Table 8, the average ratings of both the Action Bound and control students show improvement. However, the increased rating of Action Bound members is statistically significant, whereas that of the control group is not.

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43 (3) Extent of Interpersonal Trust.

(c) Results: Neither Action Bound nor the control students demonstrate significant change in Interpersonal Trust (Table 9) as measured by this method.

45 (4) Capacity to Generate and to Entertain Alternate Perspectives.

48 (c) Results: Increased capacity to generate and to entertain alternate perspectives in the interpersonal domain would be indicated by (1) increased score on Hunt's Interpersonal Flexibility Scale, (2) decreased weight of the largest dimension used in the complex social judgment task, (3) increased number of dimensions used to describe oneself and others. As may be seen in Table 10, none of these changes were observed in the Outward Bound group.

50/51 The dimensions generated by the multidimensional scaling technique are very difficult to identify due to inadequacies in the supporting data. However, there is some suggestion that whereas before the Action Bound program, the students' first and most important dimension was a simple evaluative one (i.e., "Good--Bad"), at the program's conclusion, approximately thirty // percent are using the Active--Passive and Strong--Weak dimensions. The control students showed no appreciable changes in the dimensions they used for social judgment.

In summary, there is evidence to suggest that Outward Bound training has changed the standards the students use both as a basis for social perception and for complex social judgment -- whether that judgment be one of similarity--dissimilarity or like--dislike.

55 The following measures were made for the Action Bound and control students preceding, and immediately following, the Action Bound Program:

(1) Positivity of Self Concept
(2) Non-Alienation
(3) Behavior ratings of Self Concept
(4) Emergence of an Independent Self

(1) Positivity of Self Concept

57 (c) Results:
These changes were not significant however.

60 (2) Non-Alienation

(c) Results: While the Action Bound students' increase in non-alienation was not quite significant, the number of these students showing a positive change was significantly greater than that of the control group. (Table 13)

(3) Behavior Ratings Relevant to Self Concept

Page

60/ (c) **Results:** The Action Bound members, in contrast to their matched
61 controls, showed a significant // increase in the ratings which they perceived.

61 (4) The Emergence of an Independent Self

63 (c) **Results:** There was no difference between pre- and post-test Internal Causality Score for the Action Bound Students (Table 15).

69 Changes in Capacity for Self-Reassessment Following Outward Bound Training

Involved here is the ability to perceive and to take an interest in other's points of view about oneself.

Measurement in this domain was achieved in two ways:
(1) Positivity of Perception of Authority Figures
(2) Behavior Ratings of Response to Criticism

(c) **Results:** The Action Bound students demonstrated no significant difference between ratings of teachers given before and after the Action Bound Program. These data are summarized as Table 17.

71 (2) Behavior Ratings of Response to Criticism

(a) Method of measurement: Three teachers for each student indicated the nature of that student's response to criticism by checking the appropriate description of five listed, e.g., "Accepts it cheerfully and tries to do better." (Appendix B, p. 108).

(c) **Results:** As is seen in Table 18, the Action Bound students were rated significantly higher at the conclusion of the Action Bound Program with regard to the constructiveness (positivity) of their responses to criticism by their teachers.

73-78 See extract which follows.

SUMMARY AND CONCLUSIONS

In the introduction to this report, we stated that Outward Bound training, to the extent that it accomplished its aims, would be expected to bring about the following changes in the students: (a) increased achievement orientation; (b) increased capacity to perceive and to take an interest in the points of view of others; (c) an increased sense of self identity; (d) an increased capacity to see oneself from others' perspectives as well as an increased interest in processing new information about oneself. We further pointed out that these changes are intimately involved in both character development and the development of mature interest.

Looking first at achievement orientation, we find Outward Bound training brought about an increase in interest in attending college as well as an increase in behavioral ratings of achievement orientation by the students' teachers. On the negative side, level of occupational aspiration was found to increase for both the Action Bound and control students, so this effect is probably not due to Outward Bound training. The Action Bound members' increase in willingness to work hard in pursuit of a goal was not a significant one, nor were any meaningful changes found in the flexibility of the students' occupational means-ends relationships.

With regard to the individual's capacity to perceive and to take an interest in others' points of view, Outward Bound training was predicted to result in (1) increased positivity of person perception, (2) increased behavioral ratings of peer relations, (3) increased interpersonal trust, and (4) increased ability to generate and to entertain alternate perspectives. After Outward Bound training, the students did show significant increases in the positivity of their peer ratings (ratings of their membership group per se increased, but not significantly), and their teachers rated their peer relations as being significantly more favorable. However, Outward Bound training did not affect the members' level of interpersonal trust or their willingness to interact with others, nor did it increase the students' capacity to entertain the perspectives of others. It did, however, result in changes in the standards the Outward Bound students use as a basis for social perception and for complex social judgment. The dimensions of Active--Passive and Strong--Weak have been incorporated as meaningful and important perceptual standards in addition to the evaluative (Good--Bad) dimension.

Favorable changes in the individual's sense of self identity should involve (1) increased positivity of the self concept, (2) decrease in feelings of alienation, (3) increased behavior ratings relevant to the self concept, and (4) increased emergence of an independent "self". On one measure of self esteem, at least, the boys who had received Outward Bound training were found to regard themselves as tougher, stronger, and better in general as a result of that training (they showed a non-significant increase in self esteem on the other measure). There was also an increase in how successful they thought they would be in reaching their goals. Further, the number of Action Bound students who show a decrease in feelings of alienation is significantly greater than that found in the control group. Ratings by teachers relevant to the self image of their students were also significantly higher following the students' Outward Bound training. There was no improvement in the extent to which these young men perceived themselves to be causative agents, as measured by the Rotter Internal-External Causation Scale nor could we find evidence for the increased emergence of an independent self. We did observe, however, that just as these individuals attributed increased importance to the dimensions of Active--Passive and Strong--Weak in their perception of others, they did the same in describing the self. This information, coupled with the fact that the students are seen to rate themselves higher on these dimensions after Outward Bound training (see page 74), suggests that this training has indeed increased the positivity with which the individual regards himself.

Finally, we were interested in changes in the individual's capacity for self reassessment which should occur to the extent that Outward Bound training accomplishes its aims. Here we found that whereas the students showed no increase in the positivity with which they regarded authority figures (teachers) following

Outward Bound training, their teachers did perceive the students as responding to criticism in a significantly more constructive manner, when compared to control group students.

Some mention should be made concerning the behavioral ratings of students by teachers. In all four assessment domains, the students who had received Outward Bound training were rated significantly higher at the conclusion of that program. This finding is an important one because the teachers rated "blind"; i.e., they neither knew the true purpose of the study nor whether they were rating Action Bound members or control students. Most probably, however, the increase in teacher ratings of action Bound students across all assessment domains may reflect a "halo effect"; the teacher's general impression of a student tended to influence his judgment of any particular characteristic of that student. On the basis of these teacher ratings alone, we cannot say that the students did indeed improve in all four assessment areas. However, we can say that as a result of Outward Bound training, these students were viewed significantly more positive by their teachers. This more positive perception would be expected to express itself in increased achievement over time (Rosenthal 1967).

Failure to find expected changes in Outward Bound students was most pronounced in the direct area of achievement. It should be noted, however, that achievment measures center around level of aspiration and goal orientation. Perhaps it is too early to expect such changes to occur. It seems more likely that "change" in the achievement area will begin in more basic attitudes (attitudes to self, to participating, to the community and school). Once these modifications occur, the more direct changes in achievement level (grades) and occupational orientation can emerge.

On the basis of this study, it can be stated with confidence that compared to a matched control group of students, and as a consequence of Outward Bound training, these inner-city disadvantaged students began to develop those attributes of character which act as a foundation for achievement and for mature social participation. Outward Bound training initially captures involvement through competition and cooperation in exciting physical activities and focuses upon the pedagogical effects of social participation. After such training, there was a significant change in the attitudes of Outward Bound students (a) in regard to themselves -- perceiving themselves as more active, stronger, and generally more positive and less alienated; (b) in regard to others -- more capacity to see others as individuals in their own right, a greater tendency to see peers and teachers as more positive and helpful, and a more positive attitude toward participation; (c) toward their possibility of reaching general positive goals and a more mature goal orientation expressed by greater flexibility of means. In addition, the relevant teachers perceived Outward Bound students (compared to control students) as being more positive in general, as showing a greater interest in helping others, and as developing a greater capacity for critical self assessment (indicated by their greater responsiveness to criticism by the teacher).

From a theoretical standpoint, such changes represent the development of a more mature set of attitudes toward the self, others, the school, and authority and so provide the springboard for more meaningful achievement and growth.

At such time as these programs come to be meaningfully integrated into school activity, have continuity and follow-up, the theoretically expected long term effects can be assessed.

Joseph R. Schulze,
An Analysis of the Impact of Outward Bound on Twelve High Schools
(Greenwich, Ct.: Outward Bound, Inc.). Pamphlet, 131 pages and appendix.

General Notes

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preface letter Murray E. Durst OUTWARD BOUND, Inc. and its chartered OUTWARD BOUND schools operate in the United States as privately supported non-profit institutions seeking to accomplish two primary goals:

1. To establish on a national scale programs directly run by OUTWARD BOUND which demonstrate the effectiveness of its educational philosophy and methods for Americans, and

2. To consciously introduce that philosophy and method for interpretation within traditional public and private education systems.

Since 1968 our energies have been given increasingly to the second of these aims.

Dr. Schulze conducted his analysis independently at the request of Outward Bound, Inc. It was done as part of a three year project funded by a grant from the Carnegie Corporation which sought to determine the usefulness of OUTWARD BOUND as a contributing experience for teacher training and adaptation within secondary schools. We are pleased with what he found and reported, and challenged by his conclusions and recommendations.

2 Kurt Hahn was primarily a social reformer who viewed education as a means for developing character. His chief aim was to produce responsible and active citizens.

5/6 In 1962, the first OUTWARD BOUND school in the U.S.A. was established in Colorado. Seven schools // now exist in the United States, using a variety of wilderness settings — the sea, the mountains, the forest.

6 Training in wilderness skills is given, then immediately put to use as the patrols go out on a series of expeditions. Initiative tests, rock climbing and rappel, drownproofing, and orienteering hikes are some of the stress activities designed to encourage the participants to confront his emotional and physical fears.

7 A three-day-three-night solo in the wilderness is an opportunity for participants to reflect on their experiences and examine their values. Hahn suggests that periods of aloneness enable a student to glean the harvest from his manifold experiences.

8 The remote wilderness environment has been central to the operation of an OUTWARD BOUND program. In the wilderness, the participants are forced to depend on each other for physical survival; the patrol forms a community all its own with each individual responsible for the well-being (physical,

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emotional and psychological) of others. The setting is frequently alien to the participant and provides a shock which encourages him to look at himself from a new perspective.

Stress

8/ The role of the activities which produce stress is also fundamental
9 to the OUTWARD BOUND philosophy. // Stressful activities in the form of initiative tests, rock climbs, rappel, and other physical challenges are efforts to show the participant that his potential is greater than he suspects. Meeting these stress situations the participant develops a feeling that he can do more than he previously realized. This feeling is translated into an improved self-image and an increase in self-confidence. In fact, many of the stress activities represent little physical risk, but all have components of drama and high psychological risk.

11/ Expeditions, both with and without the instructor, compose a major part of
12 an OUTWARD BOUND course. It is here that the skills learned earlier will be put to test; here, too, the feelings of responsibility and concern for others are needed to come through // the expedition. The remoteness of the wilderness setting encourages the group to solidify, and intensifies the feeling for each other.

12 The solo (a three-day-night survival alone in the woods with minimum equipment) is a dramatic individual confrontation with one's physical and emotional fears. Forced to look within for strength, the individual frequently establishes a dialogue with himself leading to an examination of his goals and values. Self-awareness, self-knowledge and self-actualization are basic goals of the solo.

14/ OUTWARD BOUND Schools in this country started as summer programs for youths
15 aged 16 to 23. It soon became clear that even as new OUTWARD BOUND schools opened, the program could never reach more than a few thousand students per year. With Joseph Nold of the Colorado OUTWARD BOUND School leading the way, OUTWARD BOUND began to seek relationships with public schools during the school year. If the OUTWARD BOUND program // could be adapted to suit the needs of a public school program, it would increase its impact on students by reaching more of them than it could existing solely as a four week summer experience. At the same time, associations were also developed with industry, youth organizations, camps, and the government agencies. OUTWARD BOUND ran programs for management personnel, Peace Corps trainees, and a variety of social work organizations. Police and black community leaders have attended the OUTWARD BOUND course in an attempt to foster racial understanding. High school drop-outs have been enlisted in OUTWARD BOUND in an attempt to encourage more positive attitudes toward self. Some colleges have also opened up OUTWARD BOUND programs, notably Dartmouth College in New Hampshire and Prescott College in Arizona. Thus, it can be seen that the OUTWARD BOUND program is a process which is highly adaptable and speaks to a variety of concerns.

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15/16 One way to reach more students was for OUTWARD BOUND to initiate a course for educators, which they implemented in the summer of 1968. It was argued that if OUTWARD BOUND could affect the nature and behavior // of teachers toward more responsive and sensitive ways of dealing with children, the OUTWARD BOUND program could reach more youths and possibly even have some impact on the nature of education. Thirty men and six women attended the first Teachers Practica (course) run at the Colorado OUTWARD BOUND School. The receptivity and enthusiasm of the teachers for this course was apparent. Because of the interest in and success of the Teachers Practica, it was expanded to 106 teachers in the summer of 1969 with courses in Colorado and the Dartmouth OUTWARD BOUND Schools.

19 This report is based on information gathered throughout the school year, 1970-71. To obtain information for this study and analysis, a variety of techniques was employed. In each case, I visited the school and observed the various programs. I observed classes as well as OUTWARD BOUND programs in an attempt to gain some feeling for the school. Discussions were held for administrators, teachers, students, parents, and OUTWARD BOUND School directors and staff. Care was taken in these discussions to ask the same questions of everyone.

20 As I have listened to students and teachers, observed programs and reviewed materials collected, I have been extremely cautious in attributing effects to OUTWARD BOUND programs and process. Schools are complex institutions, involving both programs and personalities. It is not easy to say why and just how they change. I feel confident in the conclusions which I have drawn.

21 Note: 3 urban, 4 suburban, 3 private boarding, 1 private day, 1 special

24 The following are the main reasons why schools have established OUTWARD BOUND-related projects.
Student to Student Relationships

25 Racial Tension

27 Student-Staff Relationships

30 School, Class Unity
Student Initiative and Self-Image

32 Conservation Leadership

33 In summary, the reader should be aware of motivations that have led schools to initiate OUTWARD BOUND-related programs. While some administrators see the program as a chance to reach the potential drop-out and academically unsuccessful child, others see it as an opportunity to foster an atmosphere of acceptance and understanding with the school. Some teachers initiate an OUTWARD BOUND-type program out of a desire to strengthen the student's

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sense of responsibility, while other teachers view the OUTWARD BOUND model as a means of bringing the curriculum alive. The program then is a process to be adapted to the interests and desires of the administration, faculty and students.

The significance of this point is simply that because OUTWARD BOUND is a process it can be adapted by each school to meet a variety of purposes.

44 (funding) For instance, one option is for a district to decide that the OUTWARD BOUND experience is an excellent vehicle for training teachers and only allocate money for tuitions for teachers to attend the summer OUTWARD BOUND Teachers Practica. The district might argue that the spin-off in terms of new curriculum and improved teaching techniques from the experience will affect the students without having to send both students and teachers.

Another option is for a school to send a very small number of students and teachers on an OUTWARD BOUND expedition each term in the hopes that this will bring about some changes toward improving teacher/student relationships as these participants return to school.

45 Another option is for the school to decide to plug the OUTWARD BOUND program into an already existing curriculum in the school.

A further option for an OUTWARD BOUND program is for it to demonstrate such success in terms of the desires and expectations of the school community that it replaces a project already existing in the budget.

46 One final option occurs and this may well be the most likely. Once a few teachers and students have been to the OUTWARD BOUND program and have some general level of commitment from non-participating staff and administration, they must seek ways to design and implement a program which incorporates the philosophy and/or techniques of OUTWARD BOUND into their own classrooms or into some already existing structure within the school.

46/47 This final option leads directly to the question of how one interprets the Outward Bound process. If one chooses to see it as a strictly physical and wilderness experience, then one must raise a considerable amount of money for expedition equipment, etc. However, // if one sees the process as a potential model for learning, emphasizing experience/action oriented curriculum or emphasizing group responsibility then these ideas can be incorporated into a curriculum inexpensively. For example, a math teacher returned from a seminar "A Day with OUTWARD BOUND" and immediately incorporated the notion of groups of three and four students working together on tests, papers, assignments in an attempt to develop a sense of concern and responsibility within the students for each other. Another teacher (science) having been involved in the OUTWARD BOUND process required that students have bicycles available so that when the classroom material could be enhanced by short field trips, they had that chance.

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51/ 52 If OUTWARD BOUND programs are to be successful within a school, they must prove that they have an academic component or lead toward academic // success, and are not simply a physical or wilderness program.

59 The East High OUTWARD BOUND program is not chosen here to be used as a yardstick or a model to which other schools can be compared. It is chosen with two reasons in mind: one, its association with OUTWARD BOUND (in particular with the Colorado OUTWARD BOUND School) has been a long one (five years) and this program has had a chance to evolve and to be implemented; two, East High School itself is especially representative of the major problems facing American education today. A public, urban high school large in size, 2500 students, with considerable racial mix — 50% white, 40% black, and 10% Spanish-American — it stands in the mainstream of education.

60 Both Joseph Nold (Director of Colorado OUTWARD BOUND) and Robert Colwell (principal at East High) felt that the OUTWARD BOUND process with its emphasis on group responsibility and group problem solving experiences might be useful in alleviating an atmosphere of distrust and fear. A $75,000 grant for three years ($25,000 per year) was received from the Phipps Foundation in 1966 to develop programs which would foster better human relations.

60/ 61 It is important to note that two // of the main reasons for the success was that the chief executive officer of the school, the principal, and the Colorado OUTWARD BOUND school staff understood clearly the concerns which East High had and structured their activities to satisfy those needs.

61 The following six programs indicate the main experiments.

1. OUTWARD BOUND Courses. Several students who had been identified with leadership potential and teachers took part in the normal 26-day summer OUTWARD BOUND courses.

63 2. The Aufsteiger's Mountaineering Club. A club, varying at times from 25-35 participants, was formed to introduce the OUTWARD BOUND concepts and activities into the school at a student level.

While the Aufsteiger's Club has been important in generating more interest and approval for OUTWARD BOUND activities, mountaineering itself is a limited activity as it requires a great deal of supervision, equipment and safety precautions. It was also found that mountaineering itself had an appeal pretty much restricted to white upper class youths and thus as an activity did not truly represent the overall character of the student body.

64 3. Vacation Field Trips. A major achievement arising out of the relationships with OUTWARD BOUND has been service field trips to San Felipe, California and to Creel in Chihuahua, in North Central Mexico. Thirty-four students and nine adults went on the trip to San Felipe to repair some of the

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damage to a fishing village which had been ravaged by a hurricane. Most in need of repair was the local school which became the center for the groups' activities.

65 4. Academic Field Expeditions. Academic field expeditions were led by various faculty members of East High in an attempt to enhance and enliven the material which they were presenting in class. One of the most successful expeditions was the Yampa Green River expedition.

66 5. Classroom Curriculum-Experiential Learning. One of the goals of the OUTWARD BOUND staff and faculty at East High was to develop curriculum to be used within the school which would incorporate some of the concepts of an OUTWARD BOUND wilderness experience - specifically to create a sense of understanding, involvement, commitment, and responsibility toward one's life in a complex urban environment.

68 6. Service. Underlying several of the field trips and expeditions taken by the East High students, faculty and OUTWARD BOUND staff is the idea of giving service.

69/70 One must be careful not to lay all of these changes in attitude and programs at the feet of OUTWARD BOUND. In fact, the program has served as a catalyst in the school. The changes are the result of a combination of an enthusiastic and concerned faculty, a // dynamic principal willing to open the way for structural change, and a process (OUTWARD BOUND), which spoke to the immediate needs and desires of the staff.

70 Senior Seminar. The six levels of programs just described were key factors in paving the way for a major innovation in the program of instruction started in the spring of 1970 and is to be repeated spring term 1971 -- the East High Senior Seminar.

78 Some specific, direct effects of the involvement of OUTWARD BOUND on the school are as follows:

a. A two period Urban Studies course starts by placing students in the field and then asking them to extrapolate from and organize their experiences.

b. A Western History Course meets almost entirely in the Western History Museum, where the curator is enthusiastic about accepting the help of our pupils to include a Black and Chicago dimension in the dioramas.

c. A Biology class has as one requirement that every student have available a bicycle so that the class may take off on any given day.

d. An Ecology class has similar flexibilities.

e. It is not uncommon for teachers to invite members of the class to join them for an overnight rap session in the mountains.

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79 The association between Colorado OUTWARD BOUND School and East High School has been a fruitful one. The programs which have emerged from this relationship have not only affected the relationship between students, and students and teachers, but also have served to challenge the traditional notions of what constitutes a good education. I think it is in this area that OUTWARD BOUND has made its major contribution to the school.

87 Thus, one effect of OUTWARD BOUND related programs in schools is to bring the faculty and students together in a different context than the traditional classroom. Stereotypes are broken down, and students and teachers begin to relate to each other in more understanding and tolerant ways. As the relationships between students and teachers becomes more personal, the learning process is enhanced. Many teachers feel they can relate more closely with students and many students feel that their teachers are now human, with feelings, concerns, and sensitivities not unlike their own. While this cannot be said for all teachers and students of any one school, it is clear that as more and more teachers and students in a given school take part in an OUTWARD BOUND related activity, the overall climate of relations within a school is improved.

87/88 The impact which OUTWARD BOUND related activities has had on students has been impressive. The areas of personal values, individual initiative and maturity are difficult to measure, yet evidence from personal journals, // comments from teachers and parents indicates that OUTWARD BOUND has been a valuable influence on students.

93/94 Impact on Curriculum

As the OUTWARD BOUND programs have affected the quality of the relationships between students and teachers, they have also affected what is taught in the schools and the way it is taught. More and more, educators are realizing the value of experience oriented activities as a means of teaching the academic curriculum. As well as enhancing the academic material, experience activities have a social value in terms of developing // student initiative, responsibility and class unity.

115 OUTWARD BOUND should be careful not to impose its philosophy on the schools with which it is associating. They should enter a school on the terms of the school. Each school has its own set of needs and interests and OUTWARD BOUND should tailor its program to fit those needs and interests.

117 The point is then that OUTWARD BOUND can expose teachers and administrators to their techniques and philosophy, but the school personnel itself should be responsible for the goals of its particular program.

Point of Entrance

Given that schools operate in differing ways and change at varying paces, what is the optimum point of entrance for an OUTWARD BOUND program?

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121 **Development of the Program**

As soon as it is safe or possible, OUTWARD BOUND should leave the direction and development of the program in a school to the school personnel itself.

122/ **As a Special Program**
123 Some thought should be taken about the placement in the school of an OUTWARD BOUND program. If it is only a special program for a select few (disadvantaged, super-achievers, etc.) then it may well remain outside the mainstream of the school program. If OUTWARD BOUND is to play a role in changing the fundamental process of education within a school, it should strive to become more than simply a dumping ground for special students // for which the school has no program.

125/ **As Catalyst**
126 Once OUTWARD BOUND programs have been introduced and implemented within a school, they seem to serve in the role of a catalyst. The OUTWARD BOUND process does serve to raise questions about the standard educational programs present in many schools. It challenges several notions about scheduling, curriculum, requirements, student-teacher relationships, strictly cognitive curricula, and performance // criteria to mention a few.

129 OUTWARD BOUND programs, once implemented within a school, have proven to be a vehicle for curriculum reform.

Human Relations
For institutions faced with human relations problems, the racial strife at East High for example, OUTWARD BOUND can serve to bring opposing groups together and initiate dialogue and interaction between them.

Joseph R. Schulze,
"Evaluation of Dartmouth College-New Hampshire Outward Bound
Program, Winter and Spring 1970." Unpublished paper, mimeographed,
33 pages and appendix.

General Notes

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1/ 2 One program now available in several high schools and colleges that goes beyond surface reforms is Outward Bound: a program which seeks to give the individual a sense of his own resources and thus a stronger sense of self-confidence and control over his destiny.

For several years, Outward Bound has run summer courses, each 26 days in extent, for boys and more recently for girls, age 16-23, at six schools located in the United States. A national office in Reston, Virginia, coordinates the efforts of the six schools and seeks to establish Outward Bound programs in high schools and colleges. //

The typical Outward Bound course consists of a patrol of 10-12 participants led by an instructor, living and working together in a wilderness survival situation. Training in wilderness skills, meeting planned and unplanned physical challenges (rappel, rock climbing, hiking, marathon run), a three day three night solo in the wilderness, and initiative tests are all part of an Outward Bound course. Through these stressful activities, the participant is encouraged to confront his physical and emotional fears and to arrive at some understanding of himself and his values. A diary or journal which he keeps during the course encourages him to reflect on the experience. Increased self-confidence, a greater sense of responsibility, and a deeper concern for others are the chief goals of the Outward Bound program.

2 The Outward Bound schools at Dartmouth College and Hurricane Island ran four courses for high school and college students during the winter and spring of 1970. This report will concern itself with the New Hampshire high school students and the Dartmouth College students who participated in these four courses.

2/ 3 1. D-4. This course was run by the Dartmouth College Outward Bound center during January 1970. Although the students who participated in the course came from several colleges this report is concerned only with a single patrol of ten students from Dartmouth College. The 21 day course consisted of hiking, snowshoeing, mountain climbing, a solo, and instruction in survival techniques in sub-zero temperatures. // Expeditions, both with and without instructors, were conducted in the wilderness. Also included was a three day urban solo. The student was placed in the Boston Ghetto with 50 cents and instructed to survive as best he could. Each of these ten participants served as an instructor or assistant instructor in the following Outward Bound course (D-5) run for high school students.

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3 2. D-5. This course was run by the Dartmouth College Outward Bound Center for 41 high school students, mostly from New Hampshire, in February and March 1970. The course, consisting of all male and female patrols, included hiking, snowshoeing, instruction in winter survival techniques, mountain climbing, a two day wilderness solo, and expeditions with and without instructors. Mahoosilake Lodge was used as a base of operations.

3. D-6. This course was run jointly by the Dartmouth College Outward Bound Center and Hurricane Island Outward Bound School for college students during April and May 1970. Again, this report is concerned only with the students from Dartmouth College, although unlike D-4, the Dartmouth College students were placed in patrols with students from other colleges. This course consisted of six to seven days of hiking, and showshoeing, an urban survival experience (in small groups, not solo), a six to seven day sailing expedition and a three day wilderness solo. The Dartmouth College participants then served as assistant instructors in the following course (H-25) run for high school students.

3/4 4. H-25. This course was run by the Hurricane Island Outward Bound School for high school students in May 1970; 18 of the high school students were from New Hampshire. The course consisted of // sailing expeditions both with and without instructors, a three day wilderness solo, rock climbing, initiative tests, a marathon run, drownproofing and instruction in sea survival techniques.

4 The students who participated in the four Outward Bound courses are not easily characterized. They come from a variety of backgrounds:...

Although the students at Outward Bound reflect different backgrounds, many come to the course for similar reasons. They are dissatisfied both with the education they are receiving and with their own personal values and life styles. They went to Outward Bound not only to get away from school but more often to discover something about themselves.

5 Physical challenge is a strong motivating force for going to Outward Bound, and many related this as their chief reason for attending.

7 The main source of information from which the conclusions and recommendations are drawn for this report was the students. Both a questionnaire and a personal interview were used to gather information. The personal interview was usually two hours in length and taped so that it could be analyzed and evaluated at a later date. Questions were asked about the student's perceptions of the course, the effects of the course, the other participants and the general value of the course. Specific activities, such as solo and final expedition, were examined. I interviewed 15 of the 59 New Hampshire high school students and 14 of the 19 Dartmouth College students.

In addition to the personal interview, a detailed questionnaire was designed and sent to all participants; responses were received from 35 of them. The

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questionnaire was designed to obtain the perception of the participant as to the nature and value of the course and to reveal changes in individual attitude and personality that might have occurred as a result of the course.

In addition to personal interviews and questionnaires, another method used for gathering data was discussions with members of the Outward Bound staff.

9 Stress

In all four courses, the participants found that, while there was a considerable amount of physical stress, the real stress was caused by the problems eight to ten people have in living and working together in a harsh environment. This mental and emotional stress was extremely valuable in causing the participant to examine his own behavior and learn about himself.

10 One very important and frequently mentioned value of three of the four Outward Bound courses was the mixture of people who were brought together in a patrol. Students met others from different backgrounds and with different life styles. In an age of conflict between age groups, races, and styles of dress and behavior, it is extremely important that we learn to acknowledge and respect our differences of styles and values, and work together.

13 A significant part of each Outward Bound course is the degree to which the student comes to confront, analyze, and gain insight into his own values, beliefs and behavior. The stress activities (rappel, rock climb, initiative tests), remoteness of the setting, the solo, and the group dynamics all encourage self-examination. Outward Bound is frequently a dramatic change from what the students have been doing; thus it can shake up the participant and force him to take a fresh look at himself.

15 For many of the participants the sense of mutual dependence and trust was a high point of the experience. Placed in a survival situation they not only had to work together but also depend on each other for spiritual and emotional support. Activities such as navigation, belaying, map reading, and final expedition all contribute to give the student a deep feeling of responsibility and concern for his fellow participants, a concern which, he frequently finds lacking in his normal daily life.

Teamwork is relegated to the athletic field, while classroom learning remains an individual battleground.

Similarly, schools rarely give students the responsibility that they encountered on Outward Bound. In Outward Bound they found the responsibilities enormous and invigorating. They found, too, that they could meet these responsibilities. One student said, "Navigation gave me an important feeling. The whole watch depended on me." Another described his feelings about navigation as follows: "Navigation made me feel pretty great. It was really important that I did it right. This trust was placed in me. They knew their lives could depend on it if we ran into some bad weather. I was glad they trusted me."

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15/16 Belaying someone up a rock climb was another experience of trust and responsibility. As one boy described it, "You had the guy's life in your hands. You felt like a doctor performing brain surgery. That's // about as close as you can come. His life depends on you. You really concentrate on the rope. You don't fall asleep."

16 "Everytime I threw up he would hold me. We used to be enemies, but he'd hold me and I really liked him for that 'cause I could have fallen over. Then he started to get sick and I'd hold him. There was a real close relationship there."

"When you go through something really difficult with a group of people, you develop a really strong bond that's hard to develop any other way. You have an esprit that's lacking in civilized society. Even if you can't transfer it at least you've seen it and you know it's there."

16/17 College Students as instructors

In addition to their role as participants in the course for college students, the Dartmouth students serve as the instructors and assistant instructors for the high school courses. This proved to be an extremely valuable part of the Outward Bound program for college students. The college students felt a large sense of responsibility because of the stress situation in which the high school students were placed. For // many the role of leader and the feelings of concern and responsibility which they felt were the high points of their college career.

17 Outward Bound seems to break them out of what can often be a small, egotistical world and broadens their experience and increases their consciousness for others.

18 Sense of achievement

Most participants both in the questionnaire and in the interview highlighted the sense of accomplishment they felt during and at the end of the course. They had endured physical hardships, conquered many fears and felt stronger for it.

22 Through no fault of the staff the D-4 Winter Course for Dartmouth students was hampered by the severe New Hampshire weather which was extremely cold. Virtually all of their efforts were spent in insuring warmth and safety and several of the more exciting activities could not be carried out due to the weather.

23 All Dartmouth patrol

One issue which the staff should consider for D-4 is the composition of the patrol. In D-4, all nine of the Dartmouth College students were placed in the same patrol.

24 Co-ed patrols

Many of the D-4 college participants also recommended having women in the patrol. The D-6 course did mix men and women and with great success.

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24/ Greater diversity

25 As cited in Section III, the diversity of members is an extremely valuable ingredient of the Outward Bound courses. It would prove interesting for Outward Bound to experiment and further broaden the mixture // in the patrols. For instance, they might develop a patrol which included parents, teachers, administrators, community personnel and students.

25/ Urban Solo

26 The Outward Bound staff experimented with two different types of urban experience for college students. In D-4, the individual student was given 50 cents and placed in a four block area where he had to survive for three days. Identification with minority groups and understanding of the problems of the urban poor are the main goals of the urban solo. Comments from the students indicated this experience // to be one of the most enlightening and valuable ones in the course.

27 In D-6, the Dartmouth staff changed the urban solo to a more work oriented experience. The students were divided into groups of two and four and it was arranged for them to work with certain organizations in Roxbury. I think this was a profitable experiment for Outward Bound to try, and worth trying again.

28 Wilderness solo

The three day three night solo in the wilderness is designed to give the student a chance to analyze and examine himself, as well as to test his ability to survive alone in the woods. The responses of the participants indicate that the solo is a thoughtful period. Many thought at some length about their own behavior, how they related to others in the patrol and in general what kind of life they were leading. Many of the high school students found that they wrote more on solo than they had in their classes at school.

29 Degree of difficulty

The D-5 solo raises the more general question of the degree of difficulty of the whole D-5 course. Many participants expected the course to be tougher and felt that they could have been pushed even harder.

Dan Sellard,
"Churchill Challenge: A Special Outward Bound Course Conducted by Northwest Outward Bound School for Churchill High School, Eugene, Oregon." May 1970.

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unnumb. (betw. 1 & 2) Fifty Churchill Juniors and six faculty members assembled at Churchill High School to begin their 21 day "challenge." The similarity to regular school ended when they alighted from the school bus at the "campus" of NOBS near the Whispering Pines campground adjacent to the Three Sisters Wilderness Area. Divided into six patrols, the students were given packs of equipment, food to sort and pack, taught to use the map and compass and sent on the first leg of the expedition.

2 Challenge? Yes, just as OUTWARD BOUND's courses are always a challenge to participants. Challenge? Yes, because this was something new and never tried before — taking 25 girls and 25 boys out of high school for the last three weeks of their junior year and putting them in an OUTWARD BOUND experience.

It is not at all a far fetched idea to integrate the OUTWARD BOUND experience into a modern high school's curriculum.

There is no conflict here. There is agreement -- both Churchill and OUTWARD BOUND, after all, are embarked on the same course: to help young people become self-reliant, intelligent, strong, balanced adults.

3 The random selection of the participating students was a deliberate (and successful) attempt to draw a true cross-section of the school. Since the experimental program was being privately endowed, there was no cost to the student — the kid with no money had as much chance to go as the kid who lived in the big house on the hill, the one with the swimming pool and the four-car garage.

It worked out beautifully, beyond expectations. When the Churchill student found himself with his OUTWARD BOUND patrol for the first time, he found himself with a lot of kids with whom he'd gone to school but had never gotten to know. Such is society today -- the big high school with its small groupings and impersonality.

4 Except for the rough camp clothing needed for the course, the challenge cost the students nothing. Roughly $15,000 was donated for the project by several philanthropic foundations, and interested businessmen.

5 On the first part of the expedition, students were instructed on survival foods, campcrafts (for many this was a very first camping experience), search and rescue techniques, basic knots and belays, geology and ecology.

After just a few days, patrols were climbing sheer cliffs and belaying down them with ropes. This was the first test of courage, the first

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real demonstration of what OUTWARD BOUND is all about, and here the "challenge" was very, very real.

Much has been said before in OUTWARD BOUND annals of the solo, and much will be said later. Suffice it to say for now that it is the high point of the course and, often, the high point of the participant's life.

6 Next came patrol competition -- a marathon race of six miles by trail and eight miles if by road. This course was run -- fast -- for by now, everyone was in good physical shape. And nearly everyone got lost.

15/ 16 If somehow it would be possible to follow these 50 students and the half dozen teachers for ten or so years, we'd know the real value of this experience. But already we feel that the Churchill Challenge was worth the effort. The interviews brought out one solid conclusion: that the participants got to know more about people and, even more importantly, they feel that they got to know more about themselves.

They feel that they have benefited from the experience. Several said they are sure they are better people now and that they will be better adults. Boys got to know more about girls and girls learned to appreciate boys. The word here is that boys and girls got to be considered as people.

Teachers gained new insights into students and, therefore, may be better teachers. Students got closer looks at teachers and may become better students.

This is education. Granted, it's a revolutionary departure, but it's still education in its finest sense.

There was no teevee on the mountain, no cars, no movies, no dope and no comfortable bedrooms. It was a hard life, one unfettered by role playing. Society was back in town, the society that forces people into molds and pigeonholes personalities. Here, life was eventful, even adventurous, and the young people found that they could not only dream the impossible dream, they could rise to the challenge of terrible weather, loneliness, discomfort, danger. They had to get along with each other and it turned out to be a lot easier than they thought. //

So the Churchill Challenge is over, at least for now. Should it be repeated? Ask the kids who were there. Ask the teachers and the administrators who shared the adventure. They say yes, a resounding yes. Education is more than four walled classrooms. Education is outside, too. Out where Nature is friend and foe. Out where a boy or a girl thinks deep thoughts and asks hard to answer questions. Out where people meet themselves for the first time and take long hard looks at life.

Keener Smathers,
"Outward Bound in the Professional Education of Teachers: A Study of An Experimental Component in Field Experiences." National Conference on Outdoor Pursuits in Higher Education, Appalachian State University, Boone, North Carolina, 1975.

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iii In a pilot study to determine the impact of Outward Bound education on a group of twelve University candidates for teacher certification, an eighteen day Outward Bound experience was arranged for the students by Appalachian State University, Boone, North Carolina and the North Carolina Outward Bound School. The project was funded by a DeWitt Wallace/Reader's Digest Grant. This was the first attempt to isolate the effect of Outward Bound's experience on teacher candidates during their active experiential training in student teaching.

Three groups were compared to measure the effects of the eleven week field experience. The Outward Bound group attended an Outward Bound session which required essentially the first three weeks of the University quarter. The Outward Bound group underwent a stressful series of individual and group wilderness problems involving cross country back packing, rock climbing, white water rafting and a three day wilderness solo without food. A ghetto component of the program charged each student with "making do" in Atlanta, Georgia for several days with only a dime.

A second group volunteered for the Outward Bound experience but was not selected and consequently spent the eleven weeks in student teaching. A third group expressed no interest in Outward Bound and went directly to classroom experience as the second group had done.

Four evaluation procedures were attempted. Pre and post assessment by the students of their overall professional education and self-evaluations of personal teaching readiness and performance produced noteworthy conclusions in favor of Outward Bound training. Summarization statements by students taking Outward Bound also were positive about the value of the experience. However, evaluations of the student teachers by public school classes and by college supervisors produced no significant differences among the three groups.

The Outward Bound group showed positive gains when compared with the other two groups in their feelings about personal teaching readiness and the University's part in readiness attainment. Outward Bound students gave responses in certain areas that were significantly higher by statistical standards than the group that volunteered for Outward Bound but was not selected.

iv In factor analysis of teacher characteristics generally deemed related to teaching success, a group of questions that clustered in teachers self-confidence was studied. In self-confidence, the Outward Bound group gained from beginning to end to a degree which was highly significant by statistical standards. When compared to the other groups, the Outward Bound group gained significantly. On the group which chose the classroom, the Outward Bound group gained to a highly significant degree.

Another cluster of questions dealt with student involvement - that is, the teacher characteristic of involving students directly and actively in the learning process. Again the Outward Bound group gained markedly from beginning to end almost to the point of statistical significance overall, and when compared to the group which volunteered but was denied Outward Bound, a statistically significant gain did occur.

A third cluster enveloped a group of questions in the area of interpersonal relations that is, humanistic receptivity to others as shown by the teacher. Once again, the Outward Bound group gains beginning to end were statistically significant. When compared to the other two groups, the Outward Bound group gained significantly and gained to a highly significant degree on the group which volunteered for but was denied the Outward Bound experience.

As it is, one can say that twelve students who underwent three weeks of Outward Bound during their eleven week student teaching quarter registered on a measurement instrument dealing with professional education's contribution to some of the characteristics of good teaching a highly positive impression of improvement in their overall training after eight weeks of classroom experience. Twenty-eight students who did not experience Outward Bound but underwent eleven weeks of practical teaching experience remained relatively unchanged on the same instrument in their impression of their professional education.

1 a study was designed to single out several fundamental characteristics believed possessed by a good teacher and to measure the impact of Outward Bound experience on these characteristics.

1/ When thirty-two students had volunteered for Outward Bound, the thirty-two
2 were divided by random drawing to make two groups of sixteen. One of these groups was given the Outward Bound experience // for the first three weeks of an eleven week student teaching quarter. A third group with no interest in Outward Bound volunteered to participate also.

2 The group which volunteered for but was not selected for Outward Bound went directly into the eleven week classroom teaching experience. The inclusion of this group in the study established a factor whereby the researchers could determine whether an Outward Bounder reacted differently on measurement instruments because of personality characteristics common to those who volunteer for such experiences.

The third group which showed no interest in Outward Bound also went directly to an eleven-week student teaching experience.

All three groups had a mean quality point average of C+ between 2.7 and 2.8.

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The pre and post assessment instruments were identical and were used to measure within the limits of the inventory certain changes over the eleven weeks in how the three groups rated their educational program's contribution to their teaching readiness. Measurement instruments involving student evaluations of teacher candidates and college supervisors' evaluations of teacher candidates were also attempted but with great reservations due to the emergence of a variety of circumstances under which the several candidates interned, almost all of which circumstances were beyond the control of the researcher.

2/ A fourth evaluation was quite subjective, relying upon the free expression
3 of // the Outward Bound group in personal statements.

3 The study is based on simple premises. The first is that of the perceptual psychologist which believes that learning is a self-fulfilling process best motivated by the power of self-confidence.

The second premise is that students learn better by doing, by direct involvement, by experience as contrasted with detached cognition. The assumptions in this premise are not likely to be challenged by many educators. Consequently, several aspects of student involvement were studied.

4 The third premise is that students respond better to a warm receptive, supportive personality, feel freer to explore and as a rule learn more from such a person. Consequently, several aspects of humanistic, interpersonal development were included in the study.

5/ The inventory had two parts which asked about the contributions of college
6 preparation to professional readiness before and after the experience. The seventeen items in the first part dealt with personal readiness as felt by the student teacher. (See Appendix II, p. 34). The eight items in the second part deal with readiness for effective relations with classroom students (See Appendix XX, p. 36). The items were to be rated on a seven point scale with 4 being "adequate" and 7 "superior." // Of the three groups, at the beginning Group OB by inventory responses on both parts showed the least confidence in their preparation to teach. Group CR showed more confidence in their preparation on every item of the inventory though not to a degree overall that could be termed "statistically significant."

7 Self-Concept

7/ In this cluster, Group OB gained beginning to end to a highly significant
8 degree at a level of $p. < 02$. The pre and post mean scores respectively were 3.98 and 5.17. // When compared to the other two groups, Group OB gained to a point of statistical significance on Group NS and Group CR to a highly significant degree. Both of the latter two groups dropped in mean scores from pre to post. (Appendix 1, p. 29, Table 2.)

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8 Student Involvement

Group OB with a pre-test mean of 4.25 and a post-test mean of 5.17 gained markedly from beginning to end to a level of $p. < 10$ somewhat less than what is termed "statistical significance." When compared to Group CR the gain for Group OB was noticeable but again to a level of $p. < 10$. The gain of Group OB on Group NS however was significant. Both Groups CR and NS dropped in mean scores but remained relatively unchanged and showed no noticeable comparative differences between them (Appendix I, p. 30 Table 3).

Interpersonal relations

9 Group OB with beginning and end means of 3.85 and 5.01 respectively made a "significant" gain ($p. < 05$). When compared to Group NS the gain was highly significant. Groups NS and CR again dropped in mean scores beginning to end, but not to any great extent. (See Appendix I, p. 30, Table 4.)

13 The group which volunteered for but was denied Outward Bound was included in the study as a means to determine whether persons who volunteer for such experiences have common characteristics which could affect inventory answers. The study produced no evidence of this.

16 The first instrument applied was a pre-experience inventory which was to be completed again by the three groups after the eleven week experience. The Outward Bound group completed the inventory also at the end of the three week Outward Bound experience to measure immediate impact of Outward Bound itself.

Another evaluation took place at the end of the eleven weeks and was done for all three groups by the public school students who evaluated their student teachers on characteristics generally considered to be qualities of a good teacher. The instrument was not subdivided into competency areas since this process seemed superfluous for reasons which will be analyzed later. Rather the mean scores for the whole instrument were compiled.

22 Considering the fact that the Outward Bound group scored lower in comparison at the beginning, some of the items at the end show a remarkable result. For examples, of the aforementioned, Item 2 shows a beginning to end gain for Group OB over Group NS of 166% of a full rating step.

Mary Anne Wakefield Smith,
An Investigation of the Effects of an Outward Bound Experience on Selected Personality Factors and Behaviors of High School Juniors.
1971. Unpublished dissertation, University of Oregon.

General Notes

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1 Is it possible for changes to occur in selected factors of personality in high school students as a result of an intense three week experience in the wilderness? Is it possible, further, for behavioral changes to take place as a result of that experience? It is the intent of this study to attempt to answer these questions.

On May 23, 1970, fifty juniors and six faculty members of Churchill High School in Eugene, Oregon, embarked on what was for them a new, unique, and challenging educational experience.

1/ The purpose of having a faculty member in each patrol was to bring
2 about increased understanding between // students and faculty and is not
a part of this study.

2 The six patrols, composed of five boys, five girls, one faculty member, and one or two Outward Bound patrol leaders, were to make their ways separately through the mountains, arriving at previously arranged resupply points every seven days.

5 The Churchill Challenge came to a wet and weary end on June 11, 1970, without serious injury or mishap to any of the participants. No patrols became lost during the final expedition in spite of a blizzard which hit the area for two of the final five days. Six members of the original group had left the course at the first resupply. Two left for medical reasons. One had a history of back problems and one developed a serious bronchial infection which required medical attention. The remaining four who quit simply did not wish to continue the course. Those who did finish expressed both relief and satisfaction at its completion.

7/ Thus, the purpose of this study, is to determine the extent to which,
8 if at all, selected personality factors change in young men and women sixteen and seventeen years old as a result of a three week Outward Bound experience. It is the purpose of this study, further, to determine the extent to which, if at all, change occurred in such behaviors as school // attendance and measurable success in high school courses.

9/ After a careful examination of the instruments available which pur-
10 port to measure the personality factors claimed to be affected, the Gough's Adjective Check List // (ACL) and Cattell's Sixteen Personality Factor Questionnaire (16 PF) Forms A and B, were selected.

10 It was assumed that the twenty-one day Churchill Challenge program was essentially the same in its effects as the regular twenty-six day Outward Bound course.

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11 It is further assumed that a coed course is as difficult for its participants as a course limited to either sex.

It was also assumed that the control and experimental groups used for this study represented the same population in all significant respects prior to the Outward Bound experience since they were selected randomly from among all of the juniors in the high school after separating them into groups by sex.

12 The questions this study proposed to answer were:

1) To what extent, if at all, do selected personality factors change in young men and women sixteen and seventeen years old as a result of a twenty-one day Outward Bound experience?

2) To what extent, if at all, do changes occur in school attendance and measurable success in high school courses?

12/
13 3) If changes do occur, do they last seven months to a year after the experience?

These questions may be translated into the following general statement of hypotheses:

Hypothesis 1: There will be no significant change in selected personality factors as a result of participating in a three week Outward Bound course.

Hypothesis 2: There will be no significant change in school attendance patterns as a result of participating in a three week Outward Bound course.

Hypothesis 3: There will be no significant change in academic // achievement measured by grade point average as a result of participating in a three week Outward Bound course.

16 The author of the study was a participant-observer in the twenty-one day course. It was necessary to participate for the purpose of observation, since the Outward Bound program has no room in it for observers who do not participate.

This study has not attempted to determine whether one type of student is affected more or less by the experience than another type of student except as the difference in effect may be related to the sex of the participant. Such a study would have required a much greater number of students to be involved in the program than was financially possible.

29 It was decided that the students should be juniors and that there should be an equal number of boy and girl participants. The reasons for choosing

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juniors were: 1) they would be old enough to meet the minimum Outward Bound age requirement of sixteen, 2) it was expected that they would be returning the following year which would make them available for testing and observation, and 3) they would bring back to the school whatever benefits of the program they might acquire in the form of increased enthusiasm and esprit de corps.

35/36 The Adjective Check List (ACL) was selected because it provided a simple measure, easily administered, which could be used for pre- and post-testing, with the posttesting session of the experimental group being conducted under adverse physical conditions (in the wilderness). The ACL consists of three hundred words in adjective form which the testee marks as being true or false about himself. (Appendix B). The words are largely moderate and non-controversial. They were inspired by different theoretical frameworks such as Freud's, Jung's, Mead's, and Murry's (Gough and Heilbrun, Jr., 1965). The scales used were: 1) favorable adjectives checked, 2) unfavorable adjectives checked, 3) self-confidence, 4) personal adjustment, 5) endurance, and 6) a scale constructed by the author from the adjectives in the ACL which were thought to be representative of // thoughts which would be held by a person who had responded to the Outward Bound experience in a positive manner.

38 The scales constructed by the author were for the rating of the two groups by their teachers on the factors of self-confidence, perseverance, and ability to get along with others as was demonstrated by their activities in the classroom (Appendix D). There were fifteen points on the scales with five behavioral description guides on each scale. The scales had no demonstrated reliability or validity. Such scales, however, were needed in order to provide an instrument on which teachers could rate the students, and such input was desirable. Although the rating scales have no demonstrated reliability or validity, they were carefully constructed using the guidance found in Principles of Measurement by G.C. Helmstader (1964).

39 The ACL was administered by the author to the students in the experimental and control groups one week before the students in the experimental group were to leave for their Outward Bound experience. The instructions for responding to the ACL were given to the students individually when they came to the author, who was a counselor at Churchill High School, during their scheduled free time. Efforts were made by the author to put the students at ease physically while taking the test and emotionally concerning their responses to the individual items.

39/40 At the beginning of the second semester of the senior year, seven // and one-half months following the end of the Churchill Challenge, the ACL was once again administered to the members of both the experimental and control groups. In addition, both the A and B forms of the 16 PF was administered seven and one-half months after treatment. The students were

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40 given these instruments individually over a period of a few days rather than having them respond to all three in one sitting. Rapport with students concerning the reasons for the tests and the need for as much accuracy as possible appeared to be good. Students responded to the testing in a spirit of cooperation.

During the second semester of their senior year, each of the students in the control and experimental groups were rated on the scales for self-confidence, perseverance, and the ability to get along with others by two of their teachers.

41 See Figure 1 which follows.

47 As expected, the experimental and control groups did not have significantly different grade point averages, and, therefore, it can be concluded that the two groups did belong to the same population as far as achievement in high school courses was concerned.

48 Again, as expected, the two groups did not have significantly different daily attendance records, and, therefore it can be concluded that they did belong to the same population as far as daily attendance at school was concerned. Table 3 contains the means of the two groups' single period absences during the semester immediately prior to treatment. There was also no significant difference between the two groups in single period absences, so that it can be concluded that they were from the same population concerning single period attendance.

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FIGURE 1

DESIGN OF THE STUDY

Pretreatment Procedures for Experimental and Control Groups

1. Adjective Check List
2. Junior Year, First Semester Grade Point Average
3. Junior Year, First Semester Daily Attendance
4. Junior Year, First Semester Single Period Attendance

Treatment Procedures

1. Outward Bound course for the Experimental Group
2. No treatment for the Control Group

Posttreatment Procedures for Experimental and Control Groups

1. Adjective Check List immediately following treatment
2. Adjective Check List seven and one-half months following treatment
3. Forms A and B of the Sixteen Personality Factor Questionnaire seven and one-half months following treatment
4. Senior Year, First Semester Grade Point Average
5. Senior Year, First Semester Daily Attendance
6. Senior Year, First Semester Single Period Attendance
7. Ratings by teachers eleven months following treatment

Mary Lee Smith, Roy Gabriel, and Ronald D. Anderson,
"Final Report: Project to Design Evaluation of Outward Bound."
1973. Bureau of Educational Field Services, University of Colorado.

General Notes

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1 Outward Bound is a collection of programs which has generated many evaluation studies. There appears to be a concern to demonstrate empirically what the staff and alumni have subjectively experienced and observed in others; i.e., profound changes in personality, attitudinal and interpersonal characteristics on the part of participants. These evaluation studies include several in which excellent descriptive methods have been used such as interviews and questionnaires from participants, their parents, schools (e.g. Schulze, 1970; Schulze, 1971; and Ratliff, 1972). The technique of participant observation has been effectively used in an attempt to document the experience and its results (Katz, 1969). Studies also have been conducted using more controlled designs with statistical results.

1/ To date, however, no evaluation study of Outward Bound (related to the
2 Colorado School) has been conducted to demonstrate unequivocally the results of Outward Bound. // To design such a study, determine the feasibility of conducting the study and present the necessary instrumentation was the charge given by the director of Colorado Outward Bound to the evaluation staff of the University of Colorado Bureau of Educational Research (See Appendix A).

5 After considering constraints in the program as well as the factors which contribute to program variability, it was concluded that three separate studies be proposed. These would be complementary in the sense that their results taken together would fulfill the objectives of the evaluation.

Study One is a small, tightly-controlled experiment, subjects of which would be inner-city youth from the Denver schools. Half of these, selected randomly, would receive scholarships to Outward Bound while the other half would be paid a small sum to provide control data. Both short term outcomes as measured by the instruments developed, and long term behavioral indicators would serve as the dependent variables in the study.

Study Two is an investigation of the effects of Outward Bound on all its summer participants (excluding teachers). The paradigm to be used is the time series analysis in which relevant constructs are assessed at several predetermined points in time before and after the subjects take part in Outward Bound.

Study Three is a descriptive evaluation which consists of participant observation and narrative account of what happens to one individual who experiences Outward Bound.

6 Study One Part of the original charge to the investigators was to focus on the effects of Outward Bound on inner city youth. A small tightly-

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controlled experimental design is proposed to study only this population. The basic purpose of study one is to determine whether the group of inner city youth which has experienced Outward Bound demonstrates the desired qualities to a greater extent than the equivalent group not having this experience. In addition the group characteristics of cohesiveness, cooperation, trust and mutuality will be observed and charted in those patrols which include the "experimental" participants.

7 The evaluation staff then will randomly select and assign 15 males and 15 females to the experimental group and the same numbers to the control group.

The experimental group should be assigned to 6-8 patrols so that the subjects will not compose the majority on any one patrol.

This study should take place under the best combination of circumstances with the best instructors. It was the feeling of most of the Outward Bound staff that a great deal of variability exists among instructors, courses, and times of year.

8 Instead, it is proposed that the most effective and powerful combination of circumstances be chosen by the staff so that Outward Bound be shown to best advantage. Although this procedure limits the external validity of the study (the result may not be generalizable to every course or every instructor) the internal control over the experiment is increased and procedures are simplified.

9 The proposed study is a true experiment (Design Six in Campbell and Stanley, 1966). Randomization eliminates the need for a pre-test by distributing pre-treatment differences between the experimental and control groups. Sex differences and treatment effects on the outcome variables will be simultaneously assessed by using a two-factor analysis of variance. Using pre-Outward Bound variables such as grade point average or rated adjustment as covariates would increase the power of the study to detect real differences between those who have experienced Outward Bound and those who have not.

10 The attribution of treatment effects to the natural progression of events can be more reliably discounted when, over repeated measurement of the relevant variables, an abrupt shift occurs following introduction of the treatment. The time series analysis is useful in monitoring duration and fluctuation of observed differences in the criterion measures.

12 This design effectively controls several sources of invalidity in an experiment (see Campbell and Stanley, 1966 and Glass, Willson, Gottman, 1972). First, the possibility that pre-testing may account for outcomes (i.e., testing effect) is eliminated since each individual participant responds to the instrument only once. Some participants will respond before they experience Outward Bound; some will respond afterwards. The group which

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is assessed before and the group which is assessed afterwards will be randomly equivalent. Second, since the "treatment" is staggered, there is less possibility that any changes in the outcome variables will be caused by some historical accident. Third, the extent of statistical error or random fluctuation will be tested by appropriate statistical analysis. Fourth, because three groups will be analyzed, results will indicate whether the effects of Outward Bound are generalizable across groups of participants.

13 Study Three Descriptive evaluation will be provided by using the technique of participant observation. A participant observer will be hired on the basis of four criteria: 1) he or she will not have experienced Outward Bound before, 2) he will not be atypical of Outward Bound participants in the sense of having advanced mountaineering skills, 3) he will have training in behavioral or social sciences (knowledge of feelings and personal interactions), and 4) he will have demonstrated ability to write with sensitivity and meaning.

16 Based on this decision, four principal variables were chosen as outcome criteria. These variables were chosen on the basis of interviews with staff, and analysis of program documentation, previous evaluation studies, and materials from the seminar on management by objectives conducted by Harmon. Their operational definitions are as follows:

Self-Esteem. A person high on this scale will endorse statements which indicate his valuing of himself as a person of worth, his perception of himself as neither vastly superior or inferior to other people, his acceptance of himself regardless of weaknesses, his acceptance of his physical body, his mental abilities, his ability to relate to others, and his own standards. He will reject self-deprecating comments, as well as fears of judgment of him by other people.

Self-Awareness. A person scoring high on this scale will show evidence of self-examination and analysis by indicating that he has engaged in these processes and feels in touch with himself and aware of his emotions, abilities, potential and limitations.

17 Self-Assertion. A person scoring high on this scale will endorse statements which show activity rather than passivity, which indicates taking rather than avoiding leadership and responsibility, which indicate confronting rather than avoiding fear-provoking or challenging situations.

Acceptance of Others. The person who endorses statements of compassion for other people will score high on this scale. Acceptance of others regardless of their weaknesses, willingness to assist the less able person, taking responsibility for others when it is necessary, are all components of this construct. "Others" here definitely should mean persons both in and outside the patrol. The necessity for items to exclude patrol-oriented wording, leads to an ambiguity in the scale. However, this ambiguity is pervasive through the program itself.

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18 Through the process of item analysis, a subset of items was selected based on item-subtest correlations, conceptual fit between the items and the operational definitions of each item. Forty-seven items satisfied these criteria. Below are the scale data for the final version of the instrument, entitled Inventory of Outward Bound Effect.

19 The major evidence for test validity was found in the power of the test to distinguish reliably between the Outward Bound and the non-Outward Bound (i.e. high school) samples. A significant result from an analysis of variance demonstrated that the mean composite score on the Inventory of Outward Bound Effects for persons who had completed Outward Bound was significantly higher (alpha = .05) on the constructs self-esteem, self-awareness, self-assertion, and acceptance of others than the mean for the non-participant group.

24 The purpose of the proposed evaluation is not to duplicate past internal, formative evaluations. Rather, the purpose is for a summative evaluation which will document the effects of Outward Bound according to the standards of the research community. This purpose dictates the recommendation of external evaluation, the case for which has been made by some of the leading thinkers in the field.

Mary Lee Smith, Roy Gabriel, James Schott, and William L. Padia, Evaluation of the Effects of Outward Bound. 1975. Bureau of Educational Field Services, University of Colorado.

General Notes

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1 Although no detailed theoretical explanation has yet been given concerning the psychological relationship between the Outward Bound experience and its expected results, several studies have been undertaken to test the effects of the experience on those variables thought to be important. Among the variables studied have been self-concept, achievement, motivation to achieve, social adjustment, aggression, values, attitudes toward school, alienation, and the recidivism of adjudicated delinquents. These studies have been impaired by a variety of design limitations, so that a definitive empirical demonstration of program effects has yet to be made. The present study was undertaken at the request of the Colorado Outward Bound School to make such a demonstration.

2 The investigation reported here is part of a larger evaluation undertaken for the Colorado Outward Bound School by the Bureau of Educational Field Services of the University of Colorado. The purposes of the study were to define and measure outcomes of Outward Bound, and by using a quasi-experimental research design, to determine whether these outcomes were caused by the program.

2/3 Four Criterion Variables. Four principal variables were chosen as outcome criteria. These variables were chosen on the basis of interviews with staff, analysis of program documentation, previous evaluation studies, and the published objectives of the program. Their definitions are as follows:

Self-Esteem. A person high on this scale will endorse statements which indicate his valuing of himself, his perception of himself as neither vastly superior nor inferior to others, his acceptance of himself regardless of weaknesses, his acceptance of his body, his mental abilities, and his ability to relate to others. He will not endorse self-deprecating comments, nor will he report fears of judgment by others.

Self-Awareness. A person scoring high on this scale engages in self-examination and analysis and is aware of his emotions, abilities, potential, and limitations.

Self-Assertion. A person scoring high on this scale will be active rather than passive, will assume leadership and responsibility instead of avoiding them, will confront rather than avoid fearful or challenging situations. //

Acceptance of Others. The person who scores high on this scale shows compassion for others, acceptance of others regardless of their weaknesses, willingness to assist less able people, and willingness to take responsibility for others when it is necessary. "Others" here definitely should mean persons both in and outside the patrol.

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Research Design

The objective of the study might be most adequately fulfilled by an experimental design in which subjects are assigned at random to a treatment and a control group, both of which are tested on the criterion measures following treatment. Causal claims are most validly assessed with such a true experiment. Interference by the researchers into participant selection and placement necessary in implementing a true experiment was impossible for this study, however. The decision was made instead to use the interrupted time-series design, a naturalistic, quasi-experimental procedure.

The time-series design employs repeated observations of a variable, with the treatment intervening between two selected observations in the series. Through appropriate statistical procedures (Glass, Willson, and Gottman, 1975), it can be determined whether the treatment had a significant effect on the dependent variable, i.e., an effect apart from the regular fluctuations which occur in the observations of the variable over time. If the change in the level of the variable is statistically significant, i.e., non-random, then a search begins for factors, other than the treatment, which may have been responsible for the effect. As these rival explanations are evaluated and eliminated, the causal claim for treatment becomes more valid.

The variant of time-series design used for the study reported here is a unit-replicative--stratified group--single-intervention design which eliminates several alternative explanations for a shift in level of the series and provides control groups for two of the three course groups involved.

5 The Outward Bound course has been described in detail elsewhere. Briefly, the course lasts three weeks at several locations in the Colorado Rockies. Participants are organized into patrols of approximately ten members led by a trained mountaineer. Topics are studied such as map and compass reading, mountain safety, first aid, knots, rope skills and camp craft. The patrols engage in rock climbing, rapelling, extended alpine expedition, a solo experience, and an endurance race. The Colorado organization runs three courses each summer.

All participants who had registered for one of the 1974 summer courses and had paid a tuition installment by April 1 were considered eligible for the study. Late registrants and certain special groups of students were thus excluded. The eligible population numbered 620. Each participant had already selected or been assigned by the organization to one of the three courses (June, July or August). Each participant in the June course was randomly assigned to one of eleven groups. The groups represented the two-week period in which the subjects of the group would receive and complete the instrument sent to them by mail. Eleven randomly equivalent groups were so formed. On April 15, all subjects in the first group were sent the instrument previously described. On April 30, all subjects in the second group received the instrument. This procedure was repeated

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5/ 6 every two weeks until September 30, when the eleventh and final group received the instrument. Each participant completed the isntrument only once. This procedure was repeated for those participants assigned // to the July course and again for those participants assigned to the August course. The design is illustrated in Figure 1.

6 The average rate of return of the instrument was 77 percent.

6/ 8 If the claims of Outward Bound are true, one would expect that the levels of self-assertion, self-awareness, self-esteem, and acceptance of others would be higher among those people who had recently experienced the program. In Figure 2 appears the series of 44 observations (subgroup means) for the participants of the June course on the self-assertion scale (SAS). Sixteen observations were made before the treatment and twenty-eight after. A marked increase in the level of the variable occurred immediately following the treatment intervention. Appropriate inferential tests revealed the increase to be statistically significant. This result indicates that the Outward Bound June course did have a // positive impact on participants' self assertion.

8 Statistically significant positive effects on self-esteem were found for two of the three courses.

9 No statistically significant effects on the participants' self-awareness were found for any of the three courses. The self-awareness scale was the least reliable of the four scales. The measurement error for this scale may have obscured a positive, but relatively small, intervention effect.

9/ 10 The summary statistics for the four variables and three courses are presented in Table 2. It is reasonable to conclude that the Outward Bound course has a positive impact on the participants' self-assertion, i.e., their sense of competence, leadership, and activity. There is also evidence to support the conclusion that Outward Bound affects the participants' level of self-esteem. However, this effect was not found in all three courses. Possible explanations for this inconsistency in effect across courses includes differential effectiveness of the courses // and non-random assignment of participants to the course groups. Some partial, but weak evidence exists for the effect of Outward Bound on the participants' acceptance of others. This study failed to show any impact of the program on the participants' self-awareness.

Lee Snooks and Daniel Long,
Project Bacstop: E.S.E.A. Title III Evaluative Report 1975-1976.
Mimeographed, 70 pages.

General Notes

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1 The Battle Creek School District has used its extensive outdoor education experience and staff to develop and test some notions about effecting some positive changes in interracial interaction among seventh grade students in the most racially troubled junior high school in the system.

The concept was to develop a series of structured experiences in a variety of wilderness settings which would bring students of different races together in stressful adventure activities designed to promote interaction, communication and cooperation among participating students.

5 The ropes course, wall and beam and climbing bars comprise the first two-day BACSTOP activity.

The wall and beam are obstacles in the truest sense.

6 During this first activity, students are taught the basics of outdoor living.

The second two-day BACSTOP activity is backpacking. After the initial patrol business, students are taught the basics of the use of maps and compass and then transported to a nearby forest where they are instructed to follow a compass bearing to a previously established campsite.

By the third two-day activity it is hoped that there will be a reasonably heavy ground cover of snow. The activities are cross country skiing, winter camping and dual solo.

To facilitate this more personal one-on-one communicative process, one black and one white student share a tent and campsite apart from the rest of the patrol. Each pair of students thus spends approximately fifteen to twenty hours together, and their only contact with other people is the periodic inspection by roving instructors.

7 The fourth activity experienced by a BACSTOP student is a two-day canoe trip on a nearby river.

8 The following paragraphs contain last year's evaluation team's recommendations (underlined) and responses.

Evaluation design should precede implementation.

A year is not enough.

Students associate with friends who are in turn neighbors.
Last year's evaluation suggested that additional studies should be

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undertaken to determine if segregated neighborhoods were depressing biracial interaction in the school. Lack of funds and staff made this further addition of research impossible.

Attitude tests may be useable.

Other schools should be assessed.

9 True experimentation is possible, if not practical.

...this evaluation mode has consistently sought to anchor its data and analysis to directly observed behavior.

...four major areas of inquiry:

10 What was the extent of positive biracial interaction between seventh grade students?

What was the extent of negative biracial interaction between seventh grade students?

What were the nature and number of negative biracial incidents which involved larger groups of opposite race students, i.e., "snowballing" incidents which occurred?

What was the nature of academic achievement among seventh grade students?

Each of these areas of inquiry raised further questions about how the design would be developed and implemented. Of particular difficulty were the questions which dealt with biracial interaction:

Which types of situations would allow inferences to be drawn about the nature and extent of biracial interaction?

How often should each situation be monitored to gather data?

How many measures of biracial interaction would allow inferences to be reasonably drawn about the overall level of interaction?

These questions were formulated during the late summer of 1974 by a team of cooperating university persons, administrators from the Battle Creek Public Schools, representatives from the Michigan Department of Education and the Director of Project BACSTOP. Over a period of several weeks, beginning in August 1974, the evaluation design was developed and refined. Measurement devices were designed and pilot tested, criteria for success were established, data schedules made, and techniques for analysis were agreed upon. Formal implementation of the evaluation design occurred in October, 1974 and for the present year in September of 1975.

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"Seventh grade students will display an increased level of positive biracial interaction with members of the opposite race throughout the school year."

11 It was decided to observe five different types of situations in which students would or could interact biracially:

A situation in which students were to make a choice of a hypothetical partner to engage in several diverse hypothetical activities. This was to be measured with a sociogram.

A situation in which students were required to actually choose another student to work with on a real academic task under direct teacher supervision. This was to be measured with an observation checklist.

A situation in which students were actually required to sit next to another student in an informal academic situation, under indirect supervision by a teacher. This also was to be measured with an observation checklist.

A series of non-academic situations connected with the outdoor activities in which students could voluntarily interact, with whom they wished, under indirect teacher supervision. This was to be measured with a series of systematically taken photographs.

A non-academic, social situation in which students could voluntarily interact, with whom they wished, under only indirect teacher supervision. This was to be measured with a series of systematically taken photographs.

14 "Seventh grade students will maintain within 10% the present low level of negative racially related behavior problems achieved during the 1974-75 school year." The evaluation monitored all situations in which students were referred to the office for four types of disciplinary infractions: racial or ethnic slurs, making a threat of violence, assaulting another person in the school and for fighting. Information was kept about: 1) the number of office referrals, 2) the number of suspensions for such infractions, 3) the number of these incidents which involved members of two separate races, 4) the complete description of each incident.

15 "Project Staff will gather baseline data on the number of incidents in which seventh grade students become involved in negative violent interracial interactions of other students during the 1974-75 school year."

16 "The Project staff will investigate the nature of academic achievement among seventh grade students."

17 The process objective of BACSTOP was simply that the BACSTOP program be developed and run. The actual wording for this year's evaluation follows:

18 Objective: Seventh grade students will display an increased level of positive biracial interaction with members of the opposite race throughout the school year 1975-76.

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Due to different treatment of 1975-76 data as compared to 1974-75 data, comparisons cannot be made.

19 A total increase of 12.95 was recorded by the post measure in April and May of 1976. This increase is 42.45% of the pre measures in September and October of 1975.

It was felt by Project staff and classroom teachers that a greater percentage of biracial choices might have occurred if students were more capable of spelling names. Due to spelling difficulties students repeatedly put down names of friends they are most familiar with.

21 There was a consistent increase in the number of biracial choices achieved in a real task according to this measure. An increase from 17.19 in the pre measure of September-October to 23.26 in the post measure of April and May is noted. The amount of total increase was 6.07 providing a percentage increase of 35.31% over initial levels.

A total increase of 6.07, though not statistically significant, is significant when one considers the dynamics involved in this measure. The fact that any student picks another student, of another race, in front of classmates is an increasing phenomenon illustrated by the above measurement.

Students sat at small tables with anyone, and in any numbers. The choice was the unit of analysis. As in the social studies measure, the maximum possible interaction was computed first, and then the percent of possible interaction which was achieved.

22 There was a decrease in this measure of 2.36 which is 7.96% of the pre score of September and October. As in the 1974-75 evaluation the variance between cells is suspiciously large. These results tend to verify the inference of the 1974-75 evaluators that the activity for this measure was both meaningless and irrelevant, thus promoting near-random choice patterns.

Every class experienced a variance from 00.00% level to a maximum of 50.00%. Such huge increases and decreases put the results in question.

26 ...BACSTOP is effective in increasing biracial interaction by year and by activity.

VOLUNTARY CHOICE OF PARTNERS FOR INTERACTION IN A NON-ACADEMIC, SOCIAL SITUATION UNDER INDIRECT TEACHER SUPERVISION.

28 C. Interpretation of Results: Four of the five modules in Product Objective I resulted in significant hard percentage increases. The Library Observation Checklist was the only measure that failed to show increases over initial levels. While it was impossible to show significant statistical increases it should be pointed out once again that this failure was a short-coming of the evaluation design and not attributable to the data or treatment of the data. (See limitations to the study, Chapter IV)

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30 Of the total number of violent incidents involving members of the opposite race only 9 of them were determined to have racial motivations. This figure is well within 10% of the 1974-75 measure and is lower, thus effecting a continued decline in racial incidents.

34 C. Interpretation of Results: Data collected during the 1974-75 school year suggests that group violence at Northwestern was highly uncommon. Only one incident which was racially motivated occurred among the total school population during that year. A zero incident rate during the 1975-76 school year demonstrates continued decline and thus establishes criterion for this measure.

35 Objective: Project staff will investigate the academic achievement of seventh grade students during the 1976-76 school year.

35/ 36 In table III-17 above we find that achievement in 1975-76 was comparable to the 1974-75 levels. The 1975-76 levels, however, were slightly higher on both the pre and post measures. In seven months, students showed a gain of seven months. This amounts to a per month growth level of 1.0 months. The students in the sample at the beginning of November had an average achievement level of 6.2. This is at grade 7.2, so during those 7.2 years of school their own average rate of growth had been 0.86 months per month // of school. Thus, in 1975-76 BACSTOP students in this sample exceeded their own rate of growth. In addition the BACSTOP sample group also exceeded district norms for rate of growth which is at .63 gain per month.

48 PRODUCT OBJECTIVE NUMBER I

I. Level of Attainment

Percentage increases were large enough to create statistical significance, but did not do so because of evaluation design. (See limitations to the study)

56 Objective: Project staff will gather baseline data on the number of incidents in which seventh grade students become involved in the negative violent interracial interactions of other students during the 1976-76 school year, at Southwestern and Southeastern.

C. Interpretation of Results: It appears that "snowballing incidents" or what is more commonly referred to as riots are a thing of the past.

57 Objective: Project staff will investigate the academic achievement of seventh grade students during the 1976-76 school year at Southwestern and Southeastern.

Measurement Technique: The California Achievement Test was administered to a random sample of students twice during the year. Pre and post scores will be computed. Procedures will be statistically valid. A statistical increase in the academic achievement above pre test levels is set as criterion for Southwestern for this measure.

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57 I. Level of Attainment

Criterion was achieved according to this measure. When data were submitted to a correlated T-test, increases in scores were significant at the 5.% level at all three schools.

C. Interpretation of Results: BACSTOP students at Northwestern and Southwestern experienced above average growth. Southwestern recorded higher gains with a per month gain of 1.14 with Northwestern slightly behind at a per month gain of 1.0.

58 A summary of the level of attainment of Parts I and II is necessary for subsequent clarification.

1. There was consistent increase in positive biracial interaction at target and experimental schools.
2. The low level of racially motivated violent incidents at the target school was maintained and improved upon. A lower level of racially motivated incidents was recorded at the experimental school over the control group.
3. Baseline data on "snowballing" incidents which were racially motivated was collected. The incidents at all three schools was almost zero.
4. Data on academic achievement was collected. Not only did both BACSTOP schools experience no depressing effect on academic achievement, by attending BACSTOP, but both the target school and experimental school exceeded average rates of growth.
5. Process objectives were attained; the BACSTOP activities were planned and implemented as required.

James Merit Stuckey,
Changes in Self-Descriptions of Teachers as a Result of Outward Bound Experience. 1974. Unpublished dissertation, The American University.

General Notes

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11 The resulting study has evolved with the following major goals: to provide a thorough historical review of the Outward Bound movement; to present the results of an initial attempt at statistical investigation of differential effects of Outward Bound experience on different classes of teachers; and to gain experience relevant to applying research procedures to Outward Bound-type situations, activities, and processes.

Teachers participating in Outward Bound courses at the Colorado Outward Bound School and the Dartmouth Outward Bound Center were given Gough's Adjective Check List prior to and following their Outward Bound courses. The variables investigated were (1) location of Outward Bound course, (2) sex, and (3) age of teacher-participant. Participants were also asked to respond to an open-ended questionnaire providing an alternate form of self-description. A copy of this questionnaire may be found in Appendix C. The questionnaire responses were not used in the testing of the hypotheses; rather, they were analyzed as an alternative form of self-description, with a view to exploring the problems inherent in verbal representations of broader behavior patterns, and particularly the extent to which a structured self-report (the Adjective Check List) and an unstructured one (the four-item questionnaire) are mutually translatable.

12 The purpose of this study was to determine what differential changes in self-descriptions among teachers of different ages and sexes occurred as a result of their participation in Outward Bound courses at two different Outward Bound centers.

Subproblems

The subproblems for this dissertation were the following two:

Subproblem 1. Are there differences in changes in self-descriptions of teachers of different ages and sexes at two different Outward Bound centers, for each of the eight personality characteristics studied?

Subproblem 2. Are there differences in changes in self-descriptions among the eight personality characteristics studied, for each of the various classes of teachers studied?

14 It was assumed that participation in Outward Bound courses by teachers would result in personality and behavior pattern changes.

It was assumed that the teachers participating in this study were a representative sample of all teachers who took Outward Bound courses in the summer of 1970, and of teachers who will participate in Outward Bound courses in the future.

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It was assumed that the responses to the Adjective Check List made by the participants of this study would be candid and honest.

14/ 15 This study restricted itself to the investigation of responses of teachers who had taken Outward Bound courses in // the summer of 1970, and it made no attempt to classify those teachers as a representative sample of all teachers in America.

15 There was no attempt at determination of the teaching effectiveness of the teachers who participated in the study, and of course, no attempt was made to correlate change resulting from Outward Bound experience with teaching effectiveness or change in teaching effectiveness.

This study did not attempt to determine the amount of decrease or increase in change in self-descriptions of teachers as a result of their activities between their completion of their Outward Bound courses and the second administration of the Adjective Check List.

99/ 100 The dependent variable of the present study was the change in self-description, as defined herein, of the teacher-participant. Self-descriptions, for the purposes of testing the hypotheses posited in this study, were obtained directly from the scale scores of the participants on eight of the validated scales of the Gough Adjective Check List. Change in self-description was determined by changes in these scale scores. Thus the data constituting the dependent variable were the change scores, obtained by subtracting the // pre-course scale scores from the post-course scale scores, for each of the eight ACL scales under consideration.

120 Table 27 is a compilation of the results of all these preceding analyses of variance. Though none of the F-tests for main effects showed significance of difference at the criterion levels, significance of difference at the .05 level of probability was found for six of the scales in the interaction between these main effects. For one scale, Nurturance, significance of difference was established at the .01 level. The six scales showing significance at the .05 level were Self-Control, Personal Adjustment, Dominance, Endurance, Intraception, and Abasement.

138 Thus, these differences within interactions must be accepted as significant only with great caution. In effect, they suggest a more thorough study with a larger sample.

155- 160 This study was designed to determine the influence of the factors of age, sex, and Outward Bound school attended on [c ontinued on extract which follows] correlated most highly with the Adjective Check List results was one using only six of the indicative adjectives for each of the scales as category descriptors (r = .434).

James Merit Stuckey

the change in self-descriptions of educators taking Outward Bound courses during the summer of 1970. Self-descriptions, in the present study, were determined by participants' responses to the items in the Gough Adjective Check List, and changes in self-description were determined by the differences in pre- and post-course scores on eight of the scales of the Adjective Check List.

Two hypotheses were tested. One of these posited that the variables mentioned above have no bearing on the changes in self-descriptions resulting from participation in Outward Bound courses. The other hypothesis suggested that of the eight scales of the Adjective Check List used there would be no significant difference in change scores of participants among those scales--that is, there would be evidenced no more change with respect to one personality characteristic tested than any other.

The study was originally conceived as an experimental study, attempting to determine the extent to which Outward Bound participants' self-descriptions changed in comparison with fellow teachers who did not take Outward Bound courses. A poor usable response rate was obtained, both from Outward Bound participants and members of the control group. The interaction of pair-member responses resulted in twenty-two pairs of respondents to both pre- and post-course administrations of the ACL, which fell considerably below the predetermined criterion level of thirty pairs. Therefore, only the second part of the study, investigating differences in responses among different classes of participants, was conducted.

Thirty-nine teachers participated in the study, including twenty-four males and fifteen females. Thirty participants had attended the Dartmouth Outward Bound courses during the summer of 1970, and nine had attended Colorado Outward Bound. Ages of participants ranged from twenty to thirty-nine.

As a group there was a high degree of overlap among most- and least-frequently checked adjectives between pre- and post-course administrations of the Adjective Check List, and trends of change in self-description were not readily recognizable from casual inspection of the data. Similarly, when scatter diagrams were constructed, plotting age of participant against change score on each of the ACL scales, no discernable patterns emerged.

For the variables of sex and Outward Bound school attended, the first hypothesis was tested using a double classification analysis of variance for each of the eight ACL scales. For the age variable correlation coefficients were computed for ages of participants and change scores on the ACL scales. These coefficients were computed for the participants as a total group, and for each of the main groups when classified according to sex and Outward Bound school attended.

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The first hypothesis was rejected. In the analyses of variance none of the tests for main groups showed significance at the criterion level (.05), but of the eight scales considered, five of them showed significance of difference for interaction of independent variables at the .05 level, and one was found to show differences at the .01 level of significance. The greatest difference was found in scores on the Nurturance scale; Self-control, Personal Adjustment, Endurance, Intraception, and Abasement showed significance of difference at the .05 level. The differences between various pairs of subgroups in these interactions were not subjected to t-tests because of the great disproportionality among these subgroups. Further, one subgroup, males participating in Colorado Outward Bound courses, contained only two members. It is recommended that recognition of significance of these differences be accompained by the limitation described, and given with caution. More extensive study is advised. Self-Confidence and Dominance did not evidence differences great enough to satisfy the criterion level.

When correlation coefficients for age of participant and change score were compared, only one difference was great enough to be considered significant at the .05 level, that one being for the differences between coefficients for males and females on the Self-confidence scale.

To test the second hypothesis for effect of sex and Outward Bound school attended a single classification of variance was conducted for each of the main groups, as well as for the total group, among the eight scales used in the study. None of the resulting F-tests produced ratios great enough to be significant at the .05 level.

In testing for the effect of age of participant it was found that correlation coefficients between ages and change scores did not differ significantly from each other, across the eight ACL scales used, for any of the main groupings, nor for the total group.

The second hypothesis, therefore, was supported.

Supporting data for the primary analysis were provided from the results of an open-ended questionnaire which participants completed at the time of the second administration of the Adjective Check List. This questionnaire asked the participants to describe the kinds of changes they thought had been generated in their own personalities by their Outward Bound experiences. Responses to this questionnaire were analyzed by first reducing them to unitary statements and then following a Q-sort procedure to classify responses in categories corresponding with the eight scales of the ACL used in this study. Three different Q-sorts were run, using different methods of describing the categories. The correlations of the resulting change scores with the change scores derived from the Adjective Check List were low to moderate; none were statistically significant at the .05 level. The method of describing categories for sorting responses which

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Page 174 Summarizing, the results of the present study were these: (1) There is a suggestion of some systematic difference in effect of Outward Bound due to sex differences and differences in course location. This is a possibility requiring further study for verification or rejection. (2) Systematic difference in effect of Outward Bound due to age differences was found in one of sixteen tests made. On the Self-control scale women's ages were significantly (.05) more negatively correlated with change scores than were those of men. (3) Of the eight personality characteristics studies (identified by eight of the scales of the ACL) none of them appeared to have changed more than any other for the participants involved.

Sveinn A. Thorvaldson,
"Centre Creek: An In-Service Report." 1971. Unpublished, mimeographed, 25 pages plus references.

General Notes

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1 This report gives a brief description and limited evaluation of the program for young adult offenders at Centre Creek Correctional Forest Camp near Chilliwack, B.C. The rationale beneath the planning of the program may be outlined under several headings as follows:

3 Base Expectancy Scaling. One way to type offenders is to categorize them in terms of their probability of success (or failure) on parole. There has been considerable development of scales designed to do this. When such scales are derived from background variables (factors such as age, offense, record, etc.) which occur prior to any correctional intervention, they are called base expectancy (BE) scales. Their validity would seem to stem from the fact that a) the most powerful correlates of future behavior are past behavior, and/or b) offenders tend to return to environments similar to the one they left.

4 Subjects. This report concerns those offenders selected for the program from its inception on September 1st, 1968 to June 30th, 1970 (N=134). In accord with the offender type described in general above, the great majority have, despite their youth, appreciable delinquent and/or criminal histories; most have served time in other adult institutions and the very occasional ex-penitentiary offender is included. They were, however, not considered deeply inadequate or psychopathic, were willing to go, and were not considered serious custody risks in an active, time-limited program. Further, they were required to be serving definite/indeterminate sentences and were thus between the ages of 16 and 21 inclusive.

8 Program. In September, 1968, the programming and staffing of the camp was redesigned to accommodate a special 6-month program for young offenders. It was labelled "DASH" standing for development of attitudes, skills and habits.

The offender is required to proceed, with his group, through six one-month stages, and is repeatedly evaluated and informed of his progress. Each stage is designated by clear insignia - badges, color of hard-hat, etc. - and brings such practical rewards as increased pay-rate and more privileges. The hoped-for effect is to create a potent incentive system. Probably the paramount incentive is the promise of ("automatic") parole on successful completion of the program. (Special arrangements were made with both the Provincial and Federal Parole Boards to effect this.)

In general, the program consists of a graded series of physical and "moral" challenges or tasks requiring co-operative effort, mutual assistance, and increasing levels of both skill and self-reliance. To some

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extent the approach is based on Outward Bound training methods, with the goal of teaching a sense of responsibility, adequate self-esteem, self-control, and constructive response to stress.

About 50% of the offender's time is devoted to a work program consisting of silviculture, forest trail clearing, forest park development, fire suppression, etc. It is (a) clearly of a social service nature and b) organized on a project basis; it thus combines the experience of working toward "superordinate goals" (see Bronfenbrenner, 1969) and feedback as to work accomplished. The remaining time consists of a series of short courses on search and rescue, fire suppression, first-aid, tool-handling, etc. and an increasingly demanding program of obstacle-course running, mountaineering, hiking, boating, and wilderness survival. A rotating 'foreman' system requires group members to practise leadership and assume responsibility to the point that, in later stages, the group itself is expected to plan, organize and execute a project or an expedition. The final month requires the successful completion of the "solo" - individual survival in the wilderness for several days.

9 Regulations include the requirement that all inmates maintain a clean-shaven, neat appearance (with specific items such as shirt sleeve length designated), and good posture; officers are required to be addressed respectfully and, for example, indecent language results in a designated number of pushups on the spot; morning inspections include bedmaking and personal cleanliness. Officially and to begin with, at least, there is, in effect. a spartan, semi-military and fairly authoritarian environment - a mixture of boot camp and workcamp with very little free time. This does not of course imply lack of understanding or concern and the goal is that external control will become less and less necessary as individuals and groups develop greater self-control, greater participation in the total program, and greater autonomy.

12 Recidivism. As indicated earlier this report concerns 134 offenders classified to the program on or before June 20, 1970. The date of analysis selected was December 31st, 1970 by which time 101 had graduated from the program, three were still in program, and 30 "dropouts" had been transferred to other programs. Of these 30 dropouts, 27 were transferred for behavior and three for administrative or medical reasons; 16 were eventually released from other programs and 14 were still in other programs at the date of analysis.

18 h) Time in Program. This was included to try to test whether "back-trooped" offenders tended to fail anyway on parole and therefore whether the practise of back-trooping was simply postponing the inevitable. It is interesting to note that there appears no appreciable difference in post-release performance for those completing the program on schedule and those back-trooped. The very small number of back-trooped offenders (N=13) must, however, be remembered.

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18 i) Length of Definite Portion of Sentence. Those with six months or less appear to do slightly better particularly if success is defined as no major violations. Presumably the sentence length reflects the courts judgment as to the criminality of the offender.

Sveinn A. Thorvaldson and Malcolm A. Matheson,
"The Boulder Bay Experiment." Unpublished, 13 pages, n.d.

General Notes

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1 Boulder Bay (BB) is a correctional forest camp operated by the British Columbia Corrections Service and designed for young male "first offenders." It offers a programme based on physical challenge, group influence and clear incentive. It is located in rugged mountain terrain about 40 miles from Vancouver, with access by boat.

Although personality *growth* is the ultimate goal, the programme is structured for the most part around *tasks*.

Offenders, or "residents," are admitted to the programme about once per month in groups of 10-12 members. Unless they are demoted to the group following ("backtrooped") or transferred out, they remain with their group until discharge on parole. The offender is required to proceed, with his group, through four one-month stages which involve increasing demands for cooperative social behaviour, skill, and physical competence.

2 The camp was ready to receive its first residents in July, 1968 (See Matheson, 1970 for a description of planning and staff selection). It was decided to test the effectiveness of the programme against a conventional programme for this offender group. The programme at Haney Correctional Centre, (HCC), a medium Security institution, was selected as the control.

3 The general hypotheses were that the BB group would show less recidivism, that their reconvictions would be for less serious offences, and that their reconvictions would occur later in the post-release period, i.e. that the rehabilitative effects of BB would be longer-lasting. Specifically, it was predicted that a) BB would result in a lower percentage of violators, b) that the difference would be accounted for mostly by a difference in *major* violations, and c) that the difference in violation rate would be greatest in the first year of the post-release period.

Subjects The sample was selected according to the following criteria:

a) Serving a definite/indeterminate sentence (age 16-21 inclusive)
b) Definite portion of sentence not more than 12 months
c) Total sentence not more than 36 months
d) No intent to appeal and not expecting further charges
e) Not homosexual
f) Not seriously psychopathic or criminally sophisticated
g) Serving first (non-trivial) sentence to an adult institution
(i.e. previous sentences of less than 3 months were disregarded)
h) Not currently addicted to opiates
i) Physically fit
j) No evidence of disabling fear of heights

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3 k) Score of 40/76 or higher on the CDCBE61A (representing, in American studies, 50% or better probability of parole success)

l) Considered suitable for placement either in BB or HCC

m) Not considered more suitable for other young offender programmes

3. Refers to California Department of Corrections Base Expectancy Scale 61A.

Procedure Subjects (Ss) were selected in the course of the usual classification procedures. All who met the clinical criteria for inclusion in the experimental pool were then subjected to the following random procedure to determine placement in either the experimental group (BB) or the control group (HCC): a pack of 22 cards had been shuffled and laid face down on the table. Half were marked "BB" and the other half "HCC." Unknown to the S, one of the classification officers turned the top card, and the decision would be made according to the group designated on the card. The BB Ss but not the HCC Ss were aware of the experimental nature of the programme, but not of the random selection procedure. All staff were aware of the experiment, but the identities of the control Ss placed in HCC were not revealed.

5 Measures The measures of the independent variable (programme) were date admitted, date discharged, and reason for discharge. This permitted analysis of outcome in terms of those Ss completing the programme ("graduates"), those failing to complete ("dropouts"), or both of these groups combined. No measures of programme variables (e.g. behaviour ratings, academic marks, shop placement, etc.) were recorded.

The measures of the dependent variable (post-release performance) chosen were simply a) parole board action and/or b) a new conviction. The primary source of outcome data was corrections service records. These, however, indicate only when an offender re-enters the correctional system. The data were therefore supplemented by a check of R.C.M.P. fingerprint files.

Type of Violation In only a relatively small number of cases did Parole Board action alone account for a violation, with no new conviction recorded, and these were confined to major violators, i.e. only 4 (10%) of the HCC group and 8 (27.5%) of the BB group were violators simply by revocation of parole. Parole Board action thus did not emerge as a significant measure of outcome.

6

	HCC		BB	
	N	%	N	%
A. Graduates				
Non-violators	25	32.9	47	48.4
Minor Violators	14	18.4	24	24.8
Major Violators	37	48.7	26	26.8
	76	100.0	97	100.0

William Unsoeld,
"Spiritual Values in Wilderness." In Major Papers Presented at the Conference on Experiential Education, Estes Park, Colorado, October, 1974.

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16 It's a real pleasure to be here before you today. When I came to Outward Bound in 1967, the only thing I could lay my hand to was to figure out what the objective of Outward Bound was. With my professional background in philosophy, analyzing and drawing these distinctions were my life's blood. First, we hammered out the four objectives of Outward Bound, each one complete with the appropriate program element. To briefly review these: Self-Concept (man, it's a pleasure not to have to talk about that here today) - taught with the high rappel; compassion - taught on the wall and beam and nowhere else; social service - teaching a sense of social service is clearly limited to the duty watch at Hurricane Island Outward Bound School; and finally there was the really tough one, the one that we agonized over - "to see man in a cosmic perspective" - and we programmed that with a solo. It's my humble opinion that we always kind of shortchanged that fourth one, and that's what I'm here to rectify today. I'd like to enlarge on seeing man in a cosmic perspective.

Richard Weider,
"Evaluation Report: Outward Bound Pilot Project." Town of Greece, New York Youth Bureau, Part I and II, September 1975 and February 1976. 16 pages and 8 pages.

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Part I
1 This project was developed with the very generous support of the Catholic Youth Organization.

2 During the month of July, 1975, six teenage youth from the Town of Greece, New York, participated in a standard course experience at the North Carolina Outward Bound School. The program was unlike any before offered by the Greece Youth Board or any other youth agency in Monroe County. The program involved the participants in a process known as experiential adventure education.

2/
3 Some were referrals from the Greece Police Youth Division because of their escalating delinquent behavior. Half were school dropouts, the others had either failed grades or switched schools because of behavior problems, // and most were experiencing difficult adjustment problems at home.

5 Youth participants were drawn from youth living in the Town of Greece between the ages of 16-18. The selection process was supervised by the project director who interviewed each referral. Most referrals came from the Greece Police Youth Division and were based on criteria established as a result of input provided by Colorado Outward Bound and the Michigan Department of Social Services as a result of their evaluation of the types of youth they had been most effective with. It was determined that the youth who were acting out against the community (vs. property and people) with aggressive delinquent patterns would most likely benefit from Outward Bound.

Referrals were also provided by the Town of Greece Youth Bureau, the Greece YMCA and the Greece Central School District.

Orientation

1) Attitudinal Testing

After studying many alternatives, the Coopersmith Self Esteem Inventory was selected as a suitable indicator of participants' perception of self in relationship to home, school, and peers.

The six participants with the lowest scores in the self-esteem inventory were the ones accepted for participation in the program in North Carolina following their stated interest upon completion of the orientation program.

6 Following the interviewing of potential youth participants, nine youth committed themselves to participating in the experiential orientation program. The program consisted of two-weekend camping experiences involving Outward Bound type activities aimed at providing realistic expectations of the Outward Bound experience.

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8 4) Background Investigation

After the six participants were accepted for the Outward Bound course, Louise Jesserer, Social Worker at the Greece Police Youth Division, agreed to do a brief background investigation with the applicant's approval. She met with each participant's parents discussing the youth's background, primarily focusing on questions relating to success or failure experiences in the past and how the parents perceive their child's self perception relating to their home, school, and peer relationships. Their investigations were completed prior to the participant's return from North Carolina. This information will be used in evaluating participants performance in Part II of this evaluation study.

9 Upon arrival at the base camp, each Greece participant was placed in a different crew of twelve members. (One exception to this was that two youth were placed in the same crew since only two teenage crews were in operation at that base.)

12 The two day drive back to Rochester proved to be most interesting as the group debriefed their experience almost non-stop for the entire two days journey. General reactions were elicited from everyone during the first few hours. At supper time the project director suggested a possible format for examining reactions. Each person was to respond to what, in the course, they found to be: 1) most exciting 2) hardest 3) most enjoyable 4) most frightening 5) the most impressive accomplishment 6) what they thought of their crew 7) what they thought of their instructor and 8) what they thought of the school. Everyone eagerly agreed to follow this format, not moving on to the next category until everyone had responded to the first one, etc.

14 The group will continue to meet at least every two weeks through November.

16 Though this program was expensive in terms of the normal per capita outlay by the Greece Youth Bureau, it could prove to have been a very sound investment in laying the foundation for an adaptive program which could be built on our experience this past year.

Part II
1 The aftercare or follow-up program was initiated immediately following the course. The debriefing that took place on the return ride from North Carolina to New York was detailed in the Part I Evaluation and provided a good forum for sharing impressions and preparing participants for their re-entry back home. In the ensuing weeks, the group met four times. These sessions could best be described as rap sessions during which discussion would center on what people were doing since the group last met. Discussions often related to frustrations in dealing with parents or school situations. These sessions generally maintained a positive aire and group members were encouraged to interact and offer each other their ideas or reactions. Group members expressed good feelings on having each other around to meet with and looked upon each other as a support crew.

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1/ 2 The process by which the project was to be evaluated was built into the program: a) An attitudinal test measuring self-esteem was selected and given to each participant three times: 1) before the Outward Bound course, 2) upon return from the course, and 3) six months following the course.

b) Interviews were conducted at various times during the project. Parents were interviewed by the staff social worker at the Greece Police Youth Division prior to the youth's departure for Outward Bound. These interviews delved into the youth's previous success and failure experiences, his/her relationship to family members, and how the parents perceived their child's self-image. In December, each participant was interviewed by the project director in terms of what they had done over the past five months and what // effect they perceived the Outward Bound course having on their behavior over this time. In January, each parent was again interviewed in terms of the same questions asked the youth.

c) Besides this data collection, observations were made by the project director over the past six months during the follow-up contact with the participants.

3/ 4 There was no significant change in test scores between the pre-test and first post-test for any participant. Improvements in self-esteem were not // measured until the second post-test, six months following the Outward Bound course. The measured mean improvement in esteem between the first and second post-test was significant (nine points) and the median score rose from quite low self-esteem in the pre and first post test to a norm score of 76 in the second post test, which corresponds with the norm of the other previous samples.

4 These observations raise some interesting possibilities and questions. First, this data would indicate that the participants did not return from the Outward Bound standard course with a new-improved self-esteem. Rather, the esteem grew and developed during the six months following their return. This, then, raises the question of how much this improvement in esteem can be attributable to the Outward Bound experience. Also, in what way did the experience make an impact on the participants?

7/ 8 In conclusion, several impressions have been gained over the follow-up experience of the past six months:
- there was a significant measured increase in self-esteem.
- the increase in self-esteem was strongly indicated in improved home and school relationships.
- data gained through interviews and observations strongly support that of the self-esteem testing. //
- participants attributed insights gained through Outward Bound experiences as positively influencing their actions over the six months following the course.
- the increase in self-esteem was not significant until the second post test, six months following the course, suggesting the importance of positive local experience to internalize attitude change.

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8 - there was a strong indication of the need for interventive and supportive follow-up to help neutralize the potential damage of negative experiences and to further encourage a success orientation.

- most youth were eager to attempt positive action on their own initiative during the follow-up phase.

Wesleyan University,
Program Objectives: Upward Bound, 73-74 Program.

General Notes

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7 The Wesleyan Upward Bound Project, in attempting to ignite motivation and develop skills for college acceptance among high school youngsters from poverty backgrounds, utilizes the following types of programming:

a. Motivational Ignition...
b. Academic Skill Development...
c. School Support Program...

Great Hollow Wilderness School

Wesleyan Upward Bound recruits approximately twenty new students in the spring of their eighth year in school. This provides a student population of 80 students, 20 at each grade level 9-12.

After individual and group orientation, new students and teachers participate in a wilderness school program for 21 consecutive days. The purpose of this experience is to increase fate control, efficacy, and self-confidence, and to promote development of a unique student-teacher relationship. The rationale for this approach is based on several factors:

7/8 1. The fully documented effectiveness for increasing efficacy through the Outward Bound, Inc. Program.

2. The findings of the Congress-mandated Coleman Report, "Equality of Educational Opportunity," the largest Social Science research project ever undertaken in this country which indicated efficacy or "fate control" as one of the highest correlates of academic achievement, outranking student-teacher ratio, educational level of teachers, school facilities, and other heretofore "givens" for increasing academic achievement. According to data gathered through administration // of the Rosenberg Scale of Self Esteem and Efficacy, ratings for students attending the Great Hollow Wilderness School in the summer of 1970 rose significantly.

8 3. Wesleyan Upward Bound's summer 1969 collaboration with the North Carolina Outward Bound School and our subsequent programs at Great Hollow. The reports to date, coupled with our own program evaluations show clearly the effectiveness of outdoor education as motivational ignition for the Upward Bound student.

For students entering grade 9, the motivational ignition program begins with a 21 day experience in wilderness environments operating in all types of weather. The graduated program includes a morning one mile run and dip, hiking, cliff climbing, canoeing, tests and service projects. Students live in platform tents while on the school's base camp, but the bulk of the experience is spent on expeditions during which the students sleep in sleeping bags on the ground under trail shelters. On these

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8 expeditions packs of 30-40 pounds are carried gradually increasing distances. Students prepare their own meals in base camp, on expeditions and during a "solo" experience. The entire course is strenuous and the school demands the student's best performance in all activities.

The completion of the Outdoor Program delivers an almost inestimable boost to our youngsters' sense of achievement and self-esteem. There is nothing "phony" about the challenges they have met and this discovery hits strong and runs deep. Their confrontations with nature have shown them a new layer of self -- a self with more mental, emotional and physical endurance than they have ever had the opportunity to discover before.

After completion of this "motivational ignition" experience, the new students and staff participate in a four week, non-residential, academic program along with the remaining sixty students and staff, who have started their academic program one week earlier.

12 In a careful analysis of these measures and the students in the program, the following attributes have been identified as necessary to assure achievement of program objectives:

1. Improved self-esteem
2. Improved efficacy
3. Expanded communication skills
4. Ability to use outside resources.
5. Ability to diagnose self deficiencies and strengths
6. Awareness of the demand of college programs and college entrance requirements.

13 A student's success at extending his physical, emotional, and psychological limit through these experiences, at various instances and to various degrees will ignite motivation by increasing Self-confidence, Self-esteem, Efficacy, and other desirable attitudes such as:

Personal responsibility
Social responsibility
Initiative
Determination
Self-discipline
Awareness

Activities

Climbing
Canoeing
Solo
Final Expedition
Run and Dip
Marathon
Rappeling
Rock Climbing
Portaging

BASE CAMP ACTIVITIES

Ropes Course
Wall and Beam
Initiative Tests
Short Back Packing Expedition
Orienteering

Reagh C. Wetmore,
"Influence of Outward Bound school experience on the self-concept of adolescent boys." 1972. Abstract of dissertation, Boston University School of Education.

General Notes

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1/ 2 This study was designed to determine the degree to which a change in the self-concept of adolescent boys is (1) influenced by an Outward Bound School experience, and (2) related to differences in age, socioeconomic status, race, educational level, residential locale, sports background and specific course attended at the Outward Bound School. The sample included all boys (N=272), age 15.5 years to 19.5 years, from varied backgrounds and experiences, who were accepted for admission at the Hurricane Island Outward Bound School, Maine. Each subject was in residence at the school for a period of 26 days. The Tennessee Self-Concept Scale was used to measure expressed self-concept of the sample and was administered on the first and last days of the course, and six months following the end of the course. The semantic differential scale was used by instructors to rate the overt behavior of the subjects on the last day of the course. Student Critiques were completed by subjects six months following the end of the course. Each subject was asked to comment on the influence of the Outward Bound experience on his life. Results indicated a distinct positive statistically significant change (.05 level) in the self-concept of boys while they were in attendance at the school. The intensity of positive change in self-concept experienced by boys while in attendance at the Outward Bound School decreased after they returned to their home environment. Changes in self-concept experienced by adolescent boys while in attendance at the Outward Bound School and after they returned to their home environment were not related to differences in age, socioeconomic status, educational level, race, residential locale, sports background, and specific course attended at the Outward Bound School. There was a positive relationship between student self-assessment of self-concept // and instructors' rating of students' overt behavior (significant at the .05 level). Results of Students' Critiques provide subjective data that show the Outward Bound experience favorably influences the lives of students.

3/ 4 Sample.-- The sample included all boys (272), from various geographical areas of the United States, who were accepted for admission to the Hurricane Island Outward Bound School, Maine. Each subject was in attendance at the school for twenty-six days. The subjects ranged in age from 15.5 to 19.5 years. All subjects were classified according to age group, socioeconomic status, race, educational level, residential locale, sports background and // specific course attended at the Outward Bound School. The socioeconomic status of each subject was based on occupation of head of household, family income, and education of parents or guardians as described by Herriot and St. John (11).

4 Course.-- The length of the standard course was twenty-six days. The first part of the course included instruction in rope climbing, survival swimming,

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4 rock climbing, fire fighting, ecology, first aid, rescue procedures, navigation and seamanship. During the middle of the course, students lived alone on an uninhabited island for three days. Near the end of the course, students were involved in a four-day sea expedition. The course was augmented by lectures, discussions, and physical conditioning. This study includes the results of four identical twenty-six day courses.

Test Instruments.-- The Tennessee Self-Concept Scale (7) was used to measure expressed self-concept of the sample and was administered in the first and last days of the course, and six months following the end of the course. This instrument is used to determine how an individual perceives himself and consists of a set of 100 self-descriptive statements in which the subject rates himself. The scale provides scores on nine personality characteristics including physical self, moral-ethical self, family self, social self, self-criticism, self-satisfaction, identity, behavior and personal self. The total score on the scale reflects the overall level of self-esteem. Individuals with high scores tend to like themselves, feel they are persons of value and worth, have confidence in themselves, and act accordingly. People with low scores are doubtful about their worth; see themselves as undesirable; often feel anxious, depressed, and unhappy; and have little faith or confidence in themselves. The test-retest reliability coefficients of the scales range from .80 to .90.

4/ The Osgood Semantic Differential (19) was used by instructors to rate
5 overt behavior of subjects and was completed by instructors at the end of
each course. The instructors // rated the subjects on a one to seven point
scale with the numbers placed between bipolar adjectives. The reliability
coefficient established for the scale is .85.

5 Statistical Treatment.-- t tests utilizing means for correlated samples were used to determine the statistical significance of the change in self-concept at the .05 level of confidence.

A correlation matrix was computed to determine: (1) the relationship of change in self-concept to background differences, and (2) the relationship between a student's estimate of his self-concept and the instructor's rating of the student's overt behavior. A subjective analysis was made of students' critiques by tabulating and categorizing students' comments.

All subjects were tested at the beginning and end of each course with the Tennessee Self-Concept Scale. The pre-test and post-test means were compared using t tests between correlated means. The results are shown in Table 1. An examination of the pre-test and post-test scores clearly indicates a positive and distinct statistically significant change for all of the self-concept variables with the exception of the self-satisfaction category.

A follow-up test was administered six months following the end of the course to which 124 of 272 subjects (45 percent) responded. The post-test and follow-up test means were compared using t tests for correlated means. The results are shown in Table 2.

Reagh C. Wetmore

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8 A correlation matrix was computed to determine the degree to which change in self-concept between the pre-test and post-test was related to background. The results indicate no statistically significant relationship between change in self-concept and background classification.

10 The results indicate statistically significant positive relationships between the scores on the Behavior Rating Scale and the scores on the physical self, moral self, social self, personal self, self-satisfaction, behavior, and total self scales. There were no statistically significant relationships between the scores on the Behavior Rating Scale and the scores on family self, self criticism, and identity scales. There was a positive relationship between the instructors' ratings of overt behavior of students and the self-assessment of self-concept by students. The self-concept of students was consistent with their behavior.

Six months following the end of the course, all subjects were sent a questionnaire requesting that they comment on the effect of the Outward Bound experience on their lives. Of 272 subjects, 124 (45 percent) responded to the questionnaire.

An analysis of the questionnaire show that of the 124 students who responded, 118 (95 percent) reported favorable effects of the Outward Bound School experience on their lives, and 6 (5 percent) reported unfavorable effects. Of the number of students who made favorable comments, many claimed that the experience at Outward Bound had improved their relations with people, self-identity and self-confidence.

12 The post-test and follow-up test analyses show no relationships between the positive changes in self-concept and background variables. These findings suggest that Outward Bound at Hurricane Island can be successful for boys of varied backgrounds and experiences included in this study.

Karl R. White,
"What a Small Boy and a Hammer Have to Do With Evaluative Research."
In Betty van der Smissen, Research Camping and Environmental Education,
Penn State HPER Series, No. 11, pp. 197-217.

General Notes

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197 Two of the most urgent needs of evaluative research in education are:

1. To limit our research to those questions which, if answered, will make a real difference; and,
2. To recognize that our most frequently used methodologies have been somewhat narrow and not always applicable. We need to be much more creative and innovative in seeking out and using alternative methodology which is directly appropriate to the questions we really want to ask.

200 What is Evaluation?

201 Tylerian model of evaluation.

The accreditation model. Accreditation is probably the oldest form of evaluation activity. The format is simple and straightforward. Groups of experts compile a check list of those things which are essential and/or recommended in programs of the type which are being evaluated.

202 Evaluation as a provider of information.

Evaluation as an assessment of merit.

203 Alternative Evaluation Methodologies

203/204 Scriven (1967) originally distinguished between "formative" and "summative" evaluation. Since various definitions have been offered, two, which pretty well sum up what is embodied, are: 1) Formative evaluation deals with the development of a product or program; summative deals with judging the worth// of the end product or the program at its completion. 2) Formative evaluation contains what people want to know about their program in planning ahead and trying to choose the best ingredients; and, summative evaluation concerns what outsiders want to know in trying to find out what it is and what it does (Stake, 1969, p. 5).

204 Goal-Free Evaluation. Goal Free Evaluation was first proposed by Michael Scriven (1973). If I were a program director and wanted to do a goal free evaluation of my program, I would find someone whom I thought I could trust, with whom I wouldn't be at extreme variance over the interpretation of the same facts and who knew absolutely nothing about my program. I would ask him to spend some time (anywhere from a day to periodic visits over an extended time) looking at and reacting to the program.

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Before and after he arrived I would be careful that neither I nor my staff told him any of the program's goals or objectives. His task would be to observe what was going on, look at curriculum, equipment and materials, talk to kids, staff, parents, or whoever, look at anything else he wanted to and then when the allotted time was up to give his reactions about what the program seemed to be doing, how well it seemed to be doing it, any negative side effects, and anything else which seemed important.

205 The adversary model of evaluation. The adversary model closely parallels the American and British judicial models of criminal law. If, as a project director, I wanted to do an adversary model evaluation, I would find two evaluators (or teams). To the one (the program advocate), I would say, "I want you to find and document in careful detail every piece of evidence which shows that this program is essential to the well being of our clientele." To the other (the program adversary) I would say, "I want you to find and document every piece of evidence that shows that this program is a menace to society -- or at least a waste of money. Your job is to make the strongest possible case (to convince us) that this program should be discontinued."

Portrayal evaluation.

206 Two of the most frequent ways of accomplishing this is through a participant-observer report or anthropological observation.

207 Experimental and quasi-experimental design in evaluation. Although usually not considered an evaluation model, experimental research design has been included in this section because of its wide range of applicability and infrequent use in evaluation studies.

PART B: THE COLORADO OUTWARD BOUND SCHOOL STUDY

208 Variable Identification and Instrument Construction

The first step was to determine exactly what kinds of variables should be considered in the evaluation. The charge had been given to unequivocably demonstrate the effects of the Outward Bound experience, but the program's literature and talks with administrators soon showed that the intended effects of the program had never been clearly stated. Consequently, the evaluation team did a survey of past studies, interviewed central office, field and instructional staff members as well as some alumni, did a content analysis of Outward Bound materials, and one of the staff conducted a two week field observation of one of the courses. These activities led to the identification of the following variables as being the most important intended outcomes of Outward Bound:

1. Self esteem
2. Self awareness
3. Self assertion
4. Acceptance of others

Karl R. White

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209 Self Esteem. A person high on this scale will endorse statements which indicate his valuing of himself as a person of worth, his perception of himself as neither vastly superior or inferior to other people, his acceptance of his physical body, his mental abilities, his ability to relate to others, and his own standards. He will reject self depreciating comments, as well as fears of judgment of him by other people.

Self Awareness. A person scoring high on this scale will show evidence of self-examination and analysis by indicating that he has engaged in these processes and feels in touch with himself and aware of his emotions, abilities, potential, and limitations.

Self Assertion. A person scoring high on this scale will endorse statements which show activity rather than passivity which indicates taking rather than avoiding leadership and responsibility, which indicate confronting rather than avoiding fear-provoking or challenging situations.

Acceptance of Others. The person who endorses statements of compassion for other people will score high on this scale. Acceptance of others regardless of their weaknesses, willingness to assist the less able person, taking responsibility for others when it is necessary, are all components of this construct.

Study I - Participant Observer.

210 Study II - Time series analysis (quasi-experimental). The intent of this part of the design was to examine the generalizability of the program effects across courses, times and instructors with a minimum amount of program disruption.

212 Study III - True experimental design. The final part of the design, which at the time of this writing (January, 1976) is just being completed, consisted of a true experimental design involving a total of about 60 participants.

214 We obviously need better, more sensitive and comprehensive evaluative research. The kind of research described above in the Outward Bound Study does much in providing this prescription. By using three separate but interrelated studies, and a broad range of outcome variables, the design provides for both greater power of detection and validity than is often the case. If the program is having effects in these areas, the data ought to show them — even to the unbeliever.

Herb C. Willman, Jr. and Ron Y. R. Chun,
"Homeward Bound: An Alternative to the Institutionalization of Adjudicated Juvenile Offenders." Federal Probation (September 1973), 52-58.

General Notes

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53 We have attempted in our training schools "compensatory education," "individual therapy," "group counseling," and "group therapy," among others. Many of these innovations show some promise in given situations, however, most have shown little or no lasting differences between control and experimental groups examined. Change criteria have been elusive.

As a result, we are still turning out of our training schools more youngsters going on to further criminal activities and future incarceration in adult prisons, than youngsters who reenter the mainstream of society.

53/ 54 The Colorado Outward Bound School which opened in 1962 is located on the snow-crested western slopes of the Rocky Mountains at an altitude of 8,800 feet. The program, which involves mountain walking, backpacking, high altitude camping, solo survival, rappeling and rock climbing, accepted its first adjudicated delinquents, five // in all, from the Massachusetts Department of Youth Services in 1964.

The following year, 25 more adjudicated youngsters from Massachusetts completed the Outward Bound Program in Colorado, and in newly opened Outward Bound Schools in Minnesota and Maine. This early success led to the funding of a study to determine whether a program of severe physical challenge can be effective in reducing further delinquency among adolescent boys as shown by a comparison of recidivism rates, control vs. experimental.

54 Using the best elements of the Outward Bound model developed by Kurt Hahn in Aberdovey, Wales, and taking full advantage of the experiences gleaned from association with the Colorado, Minnesota and Maine Outward Bound Schools, the Massachusetts Department of Youth Services initiated a series of pilot programs which evolved into a two-phase program of 6 weeks' duration called Homeward Bound.

Prior to coming to Homeward Bound, it is carefully explained to each boy that the program: (1) is very rugged; (2) has limited openings; (3) is voluntary; (4) once begun, must be completed; (5) once completed allows the graduate to be paroled directly home. During the study no boys declined to participate in Homeward Bound.

The assistant superintendent and the counselor explain a few basic rules to each new enrollee. There are no locks, no fences, and no secure rooms. Visiting is permitted, mail is not censored, personal clothing may be worn, phone calls may be made and received all permitted during Phase I but not in Phase II where much of the program takes place on the Appalachian Trail or at sea.

Herb C. Willman, Jr. and Ron Y. R. Chun

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55 Days are devoted to community service projects, short hikes along the National Seashore, some running, minimal calisthenics, and a few choice obstacle courses.

For those who do not pay attention during class--and this is the majority--the first overnight expedition is an eye-opener. Packs are not packed properly, some gear is left behind, not enough of the right kind of food is brought along, and most end up the first overnight cold, wet, and miserable.

Following the quiet walk, each boy is then asked to step forward to sign a pledge, reiterating his desire to continue on and complete the Homeward Bound Program. This is a soul-searching time for each youth, as his commitment is requested at a time when he feels defeated, frustrated, and incapable of meeting Homeward Bound's standards. Seldom does a boy refuse to sign. This may be due in part to peer pressure and marks the first of many personal successes he will experience in the month to follow.

56 The need to pace oneself, and the requirements of persistence in the morning run and dip, the circuit training, and the 90- to 100-mile overland expeditions challenge the delinquent's impulsivity and endurance.

The necessity of safety rules and climbing regulations in rappelling, sea expeditions, and search and rescue operations, causes him to question his previous concept that laws and regulations are to be ignored or treated lightly.

The placing of larger measures of responsibility on him as he holds the safety line of a peer who is rappelling, or assumes leadership of his brigade in stressful situations, forces him to reevaluate his worth in relationship to his peers.

His dependence on his brigade leader and peers for success, safety and well-being cause him not only to reexamine his attitude towards authority, but also to understand and accept the strength and weaknesses of himself and others.

Lastly, the sobering experience of the solo, causes him to think deeply and long about his accomplishments, and consider what brought him to Homeward Bound, and where and how he is going from here.

On a 7- to 14-month followup our studies demonstrated that 20.8 percent of the Homeward Bound Group recidivated as opposed to 42.7 percent of the control group. This finding remarkably supports the earlier study of Kelly and Baer whose research showed that 20 percent of the experimental group and 42 percent of the comparison group recidivate.

Selection of boys for Homeward Bound versus Lyman School for Boys was based solely on a "space available basis" with 32 boys going directly from the court to Homeward Bound during the first 2 weeks of each 6-week cycle and all other commitments going to Lyman School during the last 4 weeks.

Herb C. Willman, Jr. and Ron Y. R. Chun

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56 (1) Homeward Bound participants are able to stay out of trouble longer than participants in regular institutional programs. Only 38 percent of those who recidivated following the Homeward Bound program did so within the first 6 months as compared to 72 percent of the institutional or control group.

(2) There was an increased chance of success in Homeward Bound as the chronological age of the participants increased.

(3) The marital status of the parents affected success or failure in the Homeward Bound Program. Participants whose parents were "separated" showed poorer results (22.6 percent failure) than in any other marital status category.

(4) There was a significant difference in "Last school grade attended" and success-failure in the Homeward Bound Program. The higher the school grade attained, the better the chance for success.

(5) Strong tendency noted that persons who committed "assault against persons" and "larceny" are more apt to experience success in the Homeward Bound Program. Contrariwise, persons in "stubborn child" category have a marked tendency toward failure within the program.

Philip A. Winkie,
The Effects of an Outward Bound School Experience on Levels of Moral Judgment and Self-Concept. 1976. Unpublished dissertation, Graduate School of Education, Rutgers, the State University of New Jersey.

General Notes

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(abstr.) no pagin. ABSTRACT

The purpose of this investigation was to determine whether (1) there is a significant difference in levels of moral judgment and self-concept between the group exposed to the Outward Bound School process and the group which is not exposed to the process; (2) there is a relationship between moral judgment and self-concept; (3) there is a correlation between changes in "P" score // for the Rest's Defining Issues Test and "total self" score for the Tennessee Self-Concept Scale and differences in age, sex, race, parents' level of education, estimated SES, subject's level of education and previous outdoor experiences. The Rest Defining Issues Test (DIT), using six Kohlbergian type moral dilemma stories, and the Tennessee Self-Concept Scale was administered on the first and last day of the course, and 130 days following the end of the course. Each subject also completed a biographical information sheet.

The sample included 147 men and women from various geographical areas of the United States who were accepted for admission to the Hurricane Island Outward Bound School, Maine, during the time period beginning June 13, 1974 and ending July 8, 1974. Each subject was in attendance at the school for twenty-six days. This group served as the treated group and was pre-tested on Hurricane Island on the first day of arrival and post-tested on the last day of the standard course using standardized pencil and paper tests. //

Twenty-eight subjects were excluded from the study in the treated group because they were not present at the time the post-test was administered. Of these, eleven left the course for medical or personal reasons (lack of motivation). Twenty-five subjects were excluded in the control group because severe weather conditions forced early departure of some crews and prevented their completion of the post-test.

The treated group was again tested 130 days after the Outward Bound experience to determine whether changes in levels of moral judgment and self-concept occurred after they returned to their home environment. //

The Outward Bound course included rock climbing, survival capsize swimming, ecology, first aid, community service, sea expeditions, solo and rescue operations.

The Outward Bound process appears to serve as the catalyst to affect change in levels of moral judgment and self-concept. When the means of the pre-test and post-test were compared, there was distinct positive movement towards higher levels of moral judgment and self-concept when compared to the control group. This level was maintained at least

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130 days after the Outward Bound experience. Furthermore, there was a positive correlation between changes in pre-test and post-test mean scores for "P" score on the Defining Issues Test (DIT) and the subject's previous outdoor experiences. A positive correlation was discovered to exist between change in the pre-test and post-test mean scores for sex on the "total self" score of the Tennessee Self-Concept Scale. It was found that no correlation existed between the total self score (TSCS) and the "P" score of the Defining Issues Test (DIT).

1 INTRODUCTION

The Outward Bound process places no great value on the accumulation of knowledge as an end itself. The fundamental reason given for this is that the development of powers of judgment is deemed more important than the acquisition of knowledge (Hahn, 1973).

4 The solution begins with the development of a moral ethic.

11 Traditionally, the school has been viewed as a transmitter of cognitive knowledge. Rarely has the school become involved in major moral issues.

Contemporary research evidence shows that we cannot teach internal principles of moral judgment. We can only stimulate their development (Kohlberg and Turiel, 1971). There is a need to promote situations where the individual feels conflict or uncertainty about what he has done or what he is about to do and where the instructor maintains a neutral position in peer relations. Outward Bound administrators and outdoor educators are particularly interested in empirical studies involving students where the environment serves as the teaching medium.

23/24 Empirical studies have reliably and validly measured five variables in which people differ in their behavior: (1) Altruism (a sympathetic response that benefits others); (2) Moral ideology (the actions people believe to be right or wrong, their degree of commitment to these beliefs and // the function such beliefs serve in their personalities); (3) Moral insight (cognitive reasoning by which people use to justify their moral judgments and beliefs); (4) Post-transgressional responses (past behavioral emotions people express after they have violated a moral rule of some kind); (5) Resistance to temptation (the capacity to refrain from morally reprehensible behavior when motivated to engage in it, either in the presence of others or alone (Wright, 1971).

24 The most common design in the studies of morality have been correlational. Variables such as intelligence, personality, sex, age, religion, and SES are correlated and associated with some particular moral behavior.

Controlled experimental design studies of moral behavior have been limited because of practical and ethical limitations. Despite these handicaps, a fair amount of evidence is beginning to accumulate (Wright, 1971).

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80/81 *Standard Course*. Participants engage in a series of progressively challenging activities which culminate in a five day final expedition on the open sea. The length of the standard course is twenty-six days. Individuals perform daily two mile runs and plunge into icy waters; climb and negotiate a ropes course suspended high among the // trees; rock climb, rappel, and scale 100 foot granite cliffs.

81 The school specializes in seamanship and navigation. A large portion of the course is devoted to the fundamentals of rowing, sailing, anchoring, and man-overboard and squall drills. These skills, along with special attention towards safety, enable the group to successfully complete the final expedition.

Procedure. The experiment consisted of four phases: a pre-test, a standard twenty-six day Outward Bound course, a post-test, and a 120 day follow up post-test. The results were compared to a control group not receiving the Outward Bound treatment (see Figure 1).

82 Students attending the twenty-six day standard course, H-59, beginning June 13, 1974, and ending July 8, 1974, served as the experimental group. The group was pre-tested on the Rockland, Maine ferry terminal on the first day of arrival and post-tested on the last day of the standard course using appropriate standardized pencil and paper tests. A post post-test was administered 120 days following the conclusion of the course.

82/83 Students accepted for course H-60 beginning on July 15, 1974 and ending August 9, 1974, served as the control group. Pre-tests identical to those given to the experimental group were mailed to each subject in early June and returned by mail within two weeks. On the first day of their arrival on Rockland, Maine ferry terminal (July 15, 1974) the Ss // were post-tested using the same instruments, without having been treated to the standard twenty-six day Outward Bound course.

83 *Characteristics of Subjects*. The treated sample included 147 people (88 men and 59 women) from various geographical areas of the United States, ranging in age from 16 to 31 years who came from diversified backgrounds. Each subject was accepted for admission to the Hurricane Island Outward Bound School in Maine during the time period beginning June 13, 1974 and ending July 8, 1974. Each subject was in attendance at the school for twenty-six days. Biographical data forms were collected from each subject at the beginning of each course.

84 Of 105 potential control subjects who had applied for admission to course H-60, seventy-five (71.4 per cent) responded to the mailed pre-test questionnaire. The control group included seventy-five people (38 men and 37 women) ranging in age from 16 to 43 years. On the first day of their arrival on the Rockland, Maine ferry terminal (July 15, 1974), the subjects were post-tested using the same test instruments as the treated group, without having been exposed to the standard twenty-six day Outward Bound course. Twenty-five subjects were excluded in the control group because severe squalls forced early departures of some crews and prevented their completion of the post test.

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87 Two test instruments were used in the study:
1. Defining Issues Test (DIT)
2. Tennessee Self-Concept Scale

87/88 The Defining Issues Test requires a subject to read a hypothetical moral dilemma and then select from twelve statements the four that are the most important in making a decision about the case. For instance, for the moral dilemma of whether a doctor should, on the request of a terminal cancer patient, give her an overdose of a pain // killing drug, the subject is asked to consider such issues as: whether or not the woman's family is in favor of giving her the overdose; what values has the doctor set for himself in his own personal code of behavior; can society condone euthanasia while expounding protection of human lives; is helping to end another's life a responsible act of cooperation? For each of six stories, the subject evaluates a set of twelve issues and is asked to indicate how important each issue is for deciding upon an appropriate course of action to resolve the dilemma. Subjects rate each issue on a scale of importance (most, much, some, little, and no) in deciding what ought to be done. Also, subjects rank their first four choices of what they believe to be the most important issues. Issue statements were written for Stages 2, 3, 4, 5A, 5B, A (anti-establishment) and M(meaningless) statements.

90 Tennessee Self-Concept Scale (TSCS). The scale consists of 100 self-descriptive statements to which the subject provides one of five responses ranging from "completely true" to "completely false." The Tennessee Self-Concept Scale provides measures on ten personality characteristics concerning the self. It may be self-administered and used by subjects aged 12 or older who have at least a sixth grade comprehensive reading level.

94 The major objectives of the study are to determine whether:

(1) There is a significant difference in DIT scores between the group exposed to the Outward Bound school process and the group not exposed.

(2) There is a significant difference in self-concept scores between the group exposed to the Outward Bound school process and the group not exposed.

(3) There is a relationship between level of moral judgment and self-concept.

(4) There is a correlation between changes in "P" score for DIT and differences in age, sex, race, parents' level of education, estimated SES, subject's level of education, and outdoor experience.

(5) There is a correlation between changes in score for "total self" on TSCS and differences in age, sex, race, parents' level of occupation, level of family income, level of parents' education, estimated SES, subject's level of education, and outdoor experience.

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95 The statistical significance of change in moral judgment and self-concept was calculated by *t* values to compare means of the control and experimental group in the pre-test and later in the post-test. A matched *t* test was calculated for the experimental group between the pre-test and post-test, between post-test and post post-test, and between pre-test and post post-test. A matched *t* test was also performed for the control group between pre-test and post-test. P values < .05 were considered significant.

A Pearson Correlation Coefficient was calculated between changes in the P score of the Defining Issues Test and differences in age, sex, socio-economic status, race, and outdoor experience for both experimental and control groups.

99/100 To determine the difference in DIT scores after the experiment, a *t* test was used to compare post-test mean scores of the two groups. The results are shown in Table 3. //

In four out of five levels, there was a significant difference. The experimental post-test means of level "PC" and level "C" were significantly lower than the control means. This indicated that the experimental group had become less conventional in thinking than the control group.

100/101 *Experimental Group*. To determine whether the experimental group had changed in moral judgment after completing the Outward Bound experience, three matched *t* tests were performed. First, a comparison of the means of the pre-test // and post-test were executed. The results are shown in Table 4.

101/102 The results indicate a significant difference in three out of five levels. The post-test means in "PC" (pre-conventional) and "M" (meaningless) scores were significantly // lower than the pre-test measures. Also, the post-test in the principled score (P) was significantly higher.

106 *Between Groups*. To determine how the experimental and control groups compared in the ten variables of the Tennessee Self-Concept Scale (TSCS), a *t* test was performed to compare pre-test mean scores. This was to verify whether both groups were initially homogeneous. The results are shown in Table 8.

107 In nine out of ten variables, there was a significant difference between the means of the groups. The means of the experimental group were significantly lower in all nine variables. This would indicate that both groups were not homogeneous initially. The one variable that was not significantly different was self-criticism.

To determine the difference in TSCS variables after the experiment, a *t* test was performed to compare the post-test means of the experimental group and the control group. The results are noted in Table 9.

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In all ten self-concept variables, there was no significant difference between the post-test means. The results indicated that further statistical analysis was needed to determine what changes, if any, did occur in the experimental group.

115 There is no relationship between the "P" scores on the Defining Issues Test (DIT) and "total self" score on the Tennessee Self-Concept Scale.

116 Therefore, the experimenter could accept the hypothesis that there was no relationship between "P" scores and "total self" scores.

116/117 There is no correlation between change in the "P" score for DIT and differences in age, sex, race, parents' level of occupation, level of family income, level of parents' education, estimated socio-economic status (SES) // subject's level of education and previous outdoor experience.

118 In eight out of nine background variables the Pearson Coefficient (r) was not significant.

119 There is no correlation between change in total self concept for TSCS and differences in age, sex, race, parents' level of occupation, level of family income, level of parents' education, estimated socio-economic status (SES), subject's level of education and previous outdoor experience.

In eight out of nine background variables the Pearson Coefficient (r) was not significant.

SECTION IV

BIBLIOGRAPHY

Introduction

In this section we have amassed a bibliography from all of the references cited in this volume. By consulting the outline of sections which follows, the reader will gain a sense of the broad intellectual arena in which Outward Bound research has been placed. From descriptions of non-traditional educational programs and their pedagogy and evaluation to the highly specialized research on corrections and youthful offenders, we gain a sense of the broad, disparate, and rich intellectual tradition in which the research reports have been steeped. Still considering only the outline, we note that, by far, the most use has been made of psychology and the many sub-topics or concepts that this discipline lends to a study of experiential education.

For the reader interested in delving deeper into some of the topics raised by individual reports on Outward Bound, we hope this bibliography will help to provide access to some of the relevant literature. However, in making use of the bibliography, the reader should note that we have not surmounted all of the pitfalls which lurk whenever one attempts to make new and different use of separate items, here, by accumulating all bibliographic references almost without rejecting any specific item. There are the problems attendant to categorizing the entries and to deciding where to place an item that could fall into more than one category. There are also problems of making sense of titles when one is not familiar with the author and his work. Finally, there is the problem of deciding how simple or how complex to make the categories.

Without belaboring the details of how we arrived at each of the categories, we should note that since most of the research is disciplinary in nature and not applied, we utilized a disciplinary category where possible. By using but a few of these categories, we hoped to give the reader a quick but accurate sense that education, psychology, and corrections are the mainstays behind the research reports on Outward Bound and whereas a psychology perspective dominates the Outward Bound literature, the other two perspectives are important and meaningful. Beyond these major categories, we attempted to represent sizable subtopics. In several instances we chose to make a separate category for a topic which in our thinking is rapidly growing but for which there were relatively few entries. Included in this type of subcategory are the relationship between physical and psychological factors, environment and psychology, and legal matters.

It is important to note that it was not possible to check references for accuracy even where we knew several versions of the entry existed in the research literature. We cannot, therefore, vouch for the exactness of the citations. We hope that readers will contribute corrections to make the bibliography more accurate and therefore more useful.

Outline of Sections

1. Education
    - a. non-traditional programs
    - b. pedagogy
    - c. evaluation
2. Psychology
    - a. self-concept
    - b. stress
    - c. risk-taking
    - d. personality, adjustment, aspiration, and motivation
    - e. achievement
    - f. leadership
    - g. therapy, counselling, and social work intervention
    - h. small groups research
    - i. relationship of physical and psychological factors
    - j. disaster and survival experience
    - k. anxiety
    - l. moral development
    - m. assessment of individuals
    - n. individual change
    - o. environment and psychology
    - p. the adolescent and the family
    - q. general treatises and texts, and treatments of special topics

3. Corrections
    a. programs and projects
    b. prevention
    c. youthful offenders
4. Other
    a. legal matters
    b. American Indian
    c. mountain climbing and other sports
    d. ecology
    e. miscellaneous

BIBLIOGRAPHY

1. Education

a. Non-traditional programs

American Camping Association. Bibliography of Studies and Research in Camping and Outdoor Education. Martinsville, Ind.: American Camping Association, 1969.

Arnstein, George E. "What is Environmental Education?" Journal of Environmental Education (Fall 1971): 7-9.

The Asheville School Brochure. Asheville, N.C., 1975.

Austin, Ellene, et al. A Report on the East High Senior Seminar. Presented to the Board of Education, School District Number One, Denver, Colo., October 1970.

Barnhart, Lloyd. "Outdoor Recreation and Environmental Attitudes." Parks and Recreation (April 1973): 48-49.

Berry, James R. "Rugged Camps Turn Boys into Iron Men." Popular Mechanics, 125 (May 1966): 116-119.

Borstelmann, L. J. "Psychological Readiness for Change Associated with the Outward Bound Program." Mimeographed report. North Carolina Outward Bound School, 1969.

Browning, Bill. "Wilderness School for the 'Now' Generation." Field and Stream (June 1972): 62-65.

Caesar, Gene. "Outward Bound." Seventeen, 25 (1966): 93.

Carlson, Gerald and Dennis Wignall. "To Appreciate Mountain Environment." Journal of Health, Physical Education, and Recreation, 43 (1972): 19.

Carlson, Reynold Edgar, Theodore R. Deppe, and Janet R. Maclean. Recreation in American Life. 2nd ed. Belmont, Calif.: Wadsworth, 1972.

"Challenge/Discovery." Pamphlet. Prescott Institutions.

"Character and Friendship Through Hardship." Times Educational Supplement (London), June 16, 1950, p. 474.

"Character, The Hard Way." Time, August 3, 1962.

Clawson, Marion and Jack L. Knetsch. Economics of Outdoor Recreation. Baltimore: Johns Hopkins University Press, 1969.

page 500 blank.

Clegg, A.B. "Outward Bound." Address at Outward Bound Conference at Harrogate, May 9, 1965.

"The College of Hard Knocks." Parade, October 27, 1968.

Collingwood, T. R. "Survival Camping with Problem Youth." Rehabilitation Record, May-June 1972.

Colorado Outward Bound School. Colorado Outward Bound School Brochure. Denver: Colorado Outward Bound School, 1973.

Colorado Outward Bound School. Director's Report for 1966. Denver: Colorado Outward Bound, Inc., 1967.

Colorado Outward Bound School. Fall Newsletter. Denver: Colorado Outward Bound School, 1971.

Colorado Outward Bound School. "Outward Bound and Education." Mimeographed. Denver: Colorado Outward Bound School, 1970.

Colorado Outward Bound School. "The Outward Bound Program." Mimeographed. Denver: Colorado Outward Bound School, 1967.

Colorado Outward Bound School. "Report on the Outward Bound Pilot Project at the Collbran Job Corps Conservation Center." Mimeographed report. Denver: Colorado Outward Bound School, 1966.

Colorado Outward Bound School. "Report to the General Service Foundation." Mimeographed. Denver: Colorado Outward Bound School.

Colorado Outward Bound School. Urban Bound Report. Denver: Colorado Outward Bound School, 1972.

Colorado Springs School District Eleven, Department of Research and Special Studies. "Report to Colorado Springs School District Eleven." Mimeographed. Department of Research and Special Studies of School District Eleven, 1971.

Comer, Nancy. "Surviving Outward Bound." Mademoiselle (October 1971): 180-181.

Commission on Non-Traditional Study. Diversity by Design. San Francisco: Jossey-Bass, 1973.

Copp, Barry D., E. D. Pierson, and K. Sargent. Alternate Semester 1972. Denver: Colorado Outward Bound School, 1972.

Cort, David. "Mountaineers: Dilettantes of Suicide." The Nation (May 18, 1963): 423-424, 431.

"Course Helps Youth in Facing Challenges." Beyond (Spring 1966): 4.

Cowell, Charles C. "The Contributions of Physical Activity to Social Development." Research Quarterly, 31 (May 1960): 286-306.

Cratty, Bryant J. and J. N. Sage. Social Dimensions of Physical Activity. Englewood Cliffs, N.J.: Prentice-Hall, 1967.

Czura, P. "Duel with Nature." Field and Stream, 69 (1964): 52-53, 62-65.

Dartmouth Outward Bound Brochure. Hanover, N.H., 1975.

Dartmouth Outward Bound Center Application Form. Dartmouth Outward Bound Center, Hanover, N.H., 1974.

Davis, G.L. A Comparison of Army, Navy, and Air Force Survival Training Schools. Study submitted to the faculty, Air University, Maxwell A.F.B., Ala., 1973.

Decker, Gloria H. The Conservation Directory. 2nd ed. Washington, D.C.: National Wildlife Federation, 1975.

"Discovery." Pamphlet. Prescott College, Ariz.

Douglass, Robert W. Forest Recreation. New York: Pergamon, 1969.

Drasdo, Harold. Education and the Mountain Centers. Great Britain: Tyddyn Gabriel, 1972.

Driver, B.L. Elements of Outdoor Recreation Planning. Ann Arbor: University of Michigan Press, 1970.

Durst, Murray. "Preliminary Report of North Carolina Outward Bound School." Unpublished, 1969.

"Education." Time, October 11, 1968.

Edwards, J. Gordon. A Climber's Guide to Glacier National Park. San Francisco: Sierra Club, 1966.

Fieldbook for Boys and Men. New Brunswick, N.J.: Boy Scouts of America, 1967.

Fitzpatrick, Clinton N. "Philosophy and Goals for Outdoor Education." Ed.D. dissertation, Colorado State College, 1968.

Fletcher, Basil A. The Challenge of Outward Bound. London: William Heinemann, 1971.

Gabrielsen, M. Alexander and Charles Holtzer. The Role of Outdoor Education. New York: Center for Applied Research in Education, 1965.

"German Outward Bound - Lack of Rigour." Times Educational Supplement (London), August 25, 1961.

Godfrey, Robert J. "Outward Bound: A Model for Educational Change and Development." Ed.D. dissertation, University of Northern Colorado, 1972. Ann Arbor, Mich.: University Microfilms, 1972, No. 72-23, 803.

Goodrich, Lois, William L. Gunn, and L. B. Sharp. "Living and Learning at Camp." In Extending Education Through Camping. Report of the School Camp Experiment, Publications Committee. New York: Life Camps, Inc., 1948.

Grady, Roslyn M. "Green River Trip." Department of Research and Special Studies, Colorado Springs School District Eleven, 1970.

Graham, Robert B. "The Outward Bound Term." Dartmouth Alumnae Magazine, 1970.

Greene, D. and M. Lepper. "How to Turn Play into Work." Psychology Today, September 1974.

Grossman, E. "A Rough Cure for Adolescence." Harpers, 234 (May 1967): 69-72, 77-80.

Hahn, Kurt. Outward Bound Catalog. Reston, Va.: Outward Bound, Inc., 1973.

Hanson, R. A. "Outdoor Challenge and Mental Health." Naturalist, 24 (1973): 26-32.

Hardcastle, Martin. Report on Outward Bound. London: Outward Bound Trust, 1969.

Hartman, Betty and Annie Clement. "The Ohio Guide for Girls Secondary Physical Education: Adventure in Key Concepts." Journal of Health, Physical Education, and Recreation, March 1973.

Henyo, Anne. "The Blenhim Project." Strive, 2 (1972): 32-34.

Hogan, James. Impelled into Experiences: The Story of the Outward Bound Schools. London: Educational Productions, 1968.

Howard, Jane. "Last Mountain Man? Not If He Can Help It." Life, December 19, 1969.

Hubbell, John G. "You'll Never be Afraid to Try: Hurricane Island." Reader's Digest, 94 (March 1969): 173-175, 178-180.

Hunt, D.E. and R.H. Hardt. "Characterization of 1966 Summer Upward Bound Programs." Syracuse, N.Y.: Syracuse University Youth Development Center, 1967.

Hunt, D.E. and R.H. Hardt. "National Profile 1966 Upward Bound Students. Interim Report." Syracuse, N.Y.: Syracuse University Youth Development Center, 1966.

Hurricane Island Outward Bound School Brochure. Rockland, Maine, 1975.

"In Corpore Sano - OB Together." Times Educational Supplement (London), June 1, 1962, p. 1128.

International Bulletin of Outward Bound, 1 (August 1966): 22.

International Bulletin of Outward Bound, 1 (October 1967).

James, David, ed. Outward Bound. London: Routledge and Kegan Paul, 1957.

Jeneid, Michael. Adventuring Outward Bound: A Manual. Melbourne, Australia: Lansdowne Press, 1967.

Jones, Emlyn H., Robert P. Nye, and Barry G. Remley. "Outward Bound at West Chester State College." Journal of Health, Physical Education, and Recreation, 43 (1972): 40-41.

Jones, Emlyn, Robert Nye, and Barry Remley. "West Chester State College Outward Bound Course 1972." Unpublished course outline, West Chester State College, West Chester, Pennsylvania, 1972.

Katz, Richard. "A Solo-Survival Experience as Education for Personal Growth." In Educational Opportunities Forum. New York Department of Education, September 1969.

Katz, Richard and David Kolb. "Outward Bound and Education for Personal Growth." In F.J. Kelly and D.J. Baer. Outward Bound Schools as an Alternative to Institutionalization for Adolescent Delinquent Boys. Greenwich, Conn.: Outward Bound, Inc., 1968.

Kesselheim, A. Donn. "A Rationale for Outdoor Activity as Experiential Education - The Reason for Freezin'." Paper presented to the Conference on Outdoor Pursuits in Higher Education, Appalachian State University, Boone, N.C., 1974.

Kleiser, Joseph. NIMBUS Program. 1970-71 Annual Report at Lincoln-Sudbury Regional High School, Sudbury, Mass.

Kline, Jim. "Inglemoor High Schools O.E. Recreation Program." Journal of Health, Physical Education, and Recreation (November 1974): 81.

Knapp, Clifford E. "Attitudes and Values in Environmental Education." Journal of Environmental Education (Summer 1972): 26-29.

Kurland, Seymour. "Onward and Upward in Outward Bound." The New York Times (October 12, 1975): 7.

"Kurt Hahn: 'Keeper of Gordonstoun's Conscience.'" Times Educational Supplement (London), (April 20, 1973, p. 18.

LaFontaine, Barbara. "Babes in the Woods: First Girl's Outward Bound Program in this Hemisphere." Sports Illustrated, 25 (July 11, 1966): 60-73; and (July 18, 1966): 45-51.

Lahti, Donna. "The Values of Wilderness Campers." Master's thesis, Pennsylvania State University, 1972.

Lange, Will. "The Dartmouth Outward Bound Center." What's Happening?, April 1969.

Lawrence, Lydia. "Outward Bound: Rugged Challenge for Teen-agers." Reader's Digest (April 1963): 183-184, 186, 189, 191.

"London Going British in the Rockies." Times Educational Supplement (London), August 28, 1964, p. 275.

Longland, Jack. "Outward Bound Junior Courses." In David James, ed. Outward Bound. London: Routledge and Kegan Paul, 1957.

Los Angeles Times, June 4, 1971.

Los Angeles Times, September 23, 1971.

Los Angeles Times, October 12, 1971.

Loughmiller, C. Wilderness Road. Austin, Tex.: Hogg Foundation for Mental Health, 1965.

MacFayden, John. "The Place, Possibilities and Problems of Outdoor Activities in a University Recreation Programme." Paper read at Scottish Universities Physical Education Conference at St. Andrews, June 5, 1964.

Manpower Challenge. Unpublished report. Denver: Colorado Outward Bound School, 1971.

Margarell, J. "Summer in the Wilderness and College Credit, Too." Chronicle of Higher Education (June 23, 1975): 4.

"Marshmallow Becomes a Man." Life, 57 (1964): 58-65.

Masters, John. "Upon the Mountain." Holiday (September 1966): 6, 8-10, 12.

Maynard, A. Lee. "Outward Bound: Nature as Teacher." Saturday Review, 52 (May 17, 1969): 76-77.

McCue, Jim, Bud Williams, and Harv Chrouser. "Wheaton's Vanguard School." Wheaton Alumni, 33 (April 1970).

McDonald, Alistair. "Half-Time Teaching and Sport." Mimeographed. Department of Education, Nova Scotia, 1966.

Medrick, F.W. Outward Bound and Higher Education. Denver: Colorado Outward Bound School, 1972.

"Men of the Mountains." Times Educational Supplement (London), March 29, 1963, p. 659.

Meyer, Ustin, and Bryant. Instructor's Manual. North Carolina Outward Bound School, 1973.

Miner, Josphua L. "Is Our Youth Going Soft?" Princeton Alumni Weekly, 64 (April 28, 1964).

"Moray Sea School: A Real Service." Times Educational Supplement (London), August 29, 1952, p. 721.

Mt. Adams Wilderness Institute Brochure. Glennwood, Wash., 1975.

National Enquirer, July 11, 1971.

National Outdoor Leadership School Brochure. Lander, Wyo., 1975.

National Panel on High Schools and Adolescent Education. Report.

National Panel on the Reform of Secondary Education. The Reform of Secondary Education.

A Nationwide Outdoor Recreation Plan. U.S. Government Publication #32-0980, Committee Print, June 1974.

"Nature Challenges The Jobless." Denver Post, August 25, 1968.

Nevin, David. "Can an Overweight, Overage, Non-athletic Type Find Happiness Climbing a Mountain?" True (August 1970): 25-28.

New York Urban League, Youth Enrichment Services Center. Unpublished report. 1973.

Nold, Joseph. Colorado Outward Bound School, Director's Report for 1967. Denver: Colorado Outward Bound School, 1967.

Nold, Joseph J. Outward Bound Approaches to Alternative Schooling. Denver: Colorado Outward Bound School, 1973.

Nold, Joseph J. Outward Bound in Education. 1968.

Northwest Outward Bound School. "Churchill Challenge." Eugene, Ore., 1970.

Northwest Outward Bound School. "Northwest Outward Bound School." Mimeographed. Eugene, Ore., 1970.

Noyce, Wilfred. "Why Men Climb Mountains." Holiday (May 1961): 27-30, 32.

Nye, Robert P. "West Chester State: Outward Bound Revisited." Pennsylvania Journal of Health, Physical Education, and Recreation, Winter 1975.

O'Donnell, James. "Snow Trek." Parks and Recreation (April 1973): 50-51.

Olson, Sigurd F. "The Spiritual Aspects of Wilderness." In William Schwartz, ed. Voices for the Wilderness. New York: Ballantine, 1969.

"On Watch in the Mountains." Times Educational Supplement (London), August 29, 1958, p. 1304.

"Operation Outdoors." Time (December 17, 1974): 36.

"An Opportunity for Adventure." Times Educational Supplement (London), April 30, 1949, p. 276.

The Outer Limits. A Wolpers Production film, presented by the National Geographic Society. Available from Outward Bound, Greenwich, Conn.

Outward Bound, Inc.: Greenwich, Conn.

Annual Report,1972. 1972.

Outward Bound School Brochure. 1975.

Outward Bound, Inc.: Andover, Mass.

"A Beautifully, Healthy, Clear, Bright Fear: Reactions to a Day with Outward Bound at George School." Mimeographed. 1970.

Annual Report, 1967. 1967.

Annual Report, 1968. 1968.

"Maybe, It Can Be Done! Reactions to a Day with Outward Bound." Mimeographed. 1970.

Outward Bound. Brochure. 1969.

Outward Bound Schools. 1970.

Outward Bound, Inc.: Reston, Va.

Annual Report, 1966. 1966.

Annual Report, 1970. 1970.

Annual Report, 1970-71. 1971.

Annual Report of Outward Bound Schools in the United States, 1969. 1969.

Annual Report of Outward Bound Schools in the United States, 1970. 1970.

"The Method."

Outward Bound, A Catalog. 1972.

Outward Bound Circular. 1975.

Outward Bound in the Community. 1969.

Outward Bound in the Schools.

"The Philosophy."

"Outward Bound." *Journal of Health, Physical Education, and Recreation* (November 1972): 37-39.

"Outward Bound." *NEA Journal*, November 1968.

"Outward Bound, Colorado." *Harvard*, February 9, 1970.

"Outward Bound Course for Blind Boys." *Times Educational Supplement* (London), May 15, 1970.

"Outward Bound Girls Training Scheme." *Times Educational Supplement* (London), September 25, 1959, p. 321.

"Outward Bound in Germany." *Times Educational Supplement* (London), June 23, 1961, p. 1304.

"Outward Bound in the Appalachians." *The North Carolinian*. North Carolina School for the Deaf, November 1970.

"Outward Bound Sea School." *Times Educational Supplement* (London), September 2, 1944, p. 423.

"Outward Bound - The School That Strives to Give Man An Edge Over Nature." *Boston Sunday Globe*, October 31, 1971.

"Outward Bound, The Wilderness School." Avco Delta *Incentives*, Fall 1969.

"Outward Bound Together." *Times Educational Supplement* (London), June 1, 1962, p. 1128.

Outward Bound Trust. *The Outward Bound Schools: Character Training Through Adventure*. London: Outward Bound Trust, 1964.

Partridge, Ernest. "The Lessons of Nature." *Journal of Environmental Education* (Winter 1973): 35-37.

Pennsylvania State Planning Board. *Statewide Comprehensive Outdoor Education Plan*. June 1971.

Pickard, H. Stuart. "Outward Bound." *Today's Education*, 57 (November 1968): 20-22.

Pieh, R. J. "A Janus Report." *Proceedings of the First North American Conference on Outdoor Pursuits in Higher Education*. Reston, Va.: Outward Bound, Inc., 1974.

Price, Ray. "Outdoor Finishing School." *Field and Stream* (March 1968): 68-69.

"Program Objectives." Upward Bound, Wesleyan University, Summer 1972.

Project Wingspread. Unpublished report. Naperville, Ill.: Phillips Research Foundation, 1974.

Rankin, Kelly. "35 Days in the Wyoming Wilderness." Journal of Health, Physical Education, and Recreation (November 1972): 41-43.

The Recreation Imperative. U.S. Government Publication #38-6710, Committee Print, September 1974.

"Report of the Committee on Goals for Outdoor Education." Vincent A. Cyphers, Chairman. National Meeting of the Council on Outdoor Education, American Association of Health, Physical Education, and Recreation. Seattle, Wash., April 1969.

Report of the Director. Marble, Colo.: Colorado Outward Bound School, November 1969.

Report of the Director. Marble, Colo.: Colorado Outward Bound School, November 1970.

Richter, Gastow, and Lina. "Outward Bound in Germany and Kenya." Times Educational Supplement (London), June 23, 1961, p. 1304.

Ritchey, John M. "Coeducational Mountaineering." Journal of Health, Physical Education, and Recreation, 43 (1972): 22.

Roberts, David S. "Death in a Far Away Place." Saturday Evening Post (January 27, 1968): 30-34, 36-38, 40.

Rudolph, Elizabeth and James Lustenader. "Outward Bound: Challenging the Individual." Profile. New York: Time Education Program, 1970.

Schmidt, Albert C. "Above the Clouds." The Reporter (April 22, 1965): 38-39.

"School in the Wilds." McCall's (June 1956): 8-10.

Sears, Larry. "Outward Bound Leader Finds School Develops Person." Greeley (Colorado) Tribune. July 27, 1969.

"Sensory Awareness In An Outdoor Adventure Camp." Pamphlet. Lute Jerstad Adventures, 1972.

Sheehy, Gail. "Catch 30." New York Magazine, May 2, 1974.

Sheltmire, Jack C. "Winter Camping on Semester Break." Journal of Health, Physical Education, and Recreation (September 1974): 78-79.

"The Short-Term Training School." Times Educational Supplement (London), February 3, 1945, p. 53.

Shuttleworth, Sir James Kay. Memorandum on Popular Education. London: Woburn Press, 1969.

Smith, Julian. "Adventure in Outdoor Education." Journal of Health, Physical Education, and Recreation (May 1955): 8-9.

Solimine, Alexander. "Seven-year-olds Meet Challenges of Real Wilderness Tripping." Camping (September 1972): 19.

Solomon, J. Draft Report on "Boulder Bay." Prepared for the LeDain Commission. Ottawa, Canada: 1971.

Stapp, William B. "Environmental Encounters." Environmental Education, 2 (Fall 1970).

"A Summary Report of Involvement of the COBS in Areas of Social Concern." Denver: Colorado Outward Bound School.

"Summer Camps With A Difference." News Front, November 1967.

Summers, Spencer. "The History of the Trust." In David James, ed. Outward Bound. London: Routledge and Kegan Paul, 1957.

"Survival Schools." This Week (August 10, 1969): 8, 10-11.

Survival - Training Edition. AF Manual 64-3. Washington, D.C.: Department of the Air Force, 1969.

Tedder, M. Letter. In Times Educational Supplement (London), July 13, 1962, p. 55.

Templin, Gary. "Outward Bound: Education Unlimited." Pamphlet.

Templin, Gary. "People Are The Program." Strive, 2 (1970).

Thesemer, David. "The Outward Bound Movement." Bachelor's thesis, Harvard University, 1969.

Thomas, D.R.O. "The Outward Bound Schools and Industry." In David James, ed. Outward Bound. London: Routledge and Kegan Paul, 1957.

"Training the Leaders - Adventure Schools." Times Educational Supplement (London), August 13, 1965, p. 273.

"Training Under Sail for Fitness." Times Educational Supplement (London), March 20, 1943, p. 135.

"Unit I: Ropes and Balance and Wood and Height." In Project Adventure. Hamilton-Wenham Regional High School, Hamilton, Mass.

Urban Bound. Denver: Colorado Outward Bound School, 1969.

Van der Smissen, Betty. Research Camping and Environmental Education. Penn State HPER Series No. 11. Proceedings from the National Research Workshop, The Pennsylvania State University, College of Health, Physical Education, and Recreation, December 3-6, 1975.

Warder, Donald S. "Learning in the Wilderness." *Journal of Health, Physical Education, and Recreation* (May 1974): 77.

"What Would You Do In A Fix Like This?" *Life*, November 22, 1970.

"What's Happening? October 1969. Andover, Mass.: Outward Bound, Inc.

What's Happening? Nos. 3, 4, 5, 6, 7, November 1969-September 1971. Andover, Mass.: Outward Bound, Inc.

"Wilderness Survival School." *Montana Education* (April 1965): 26.

"The Wilderness System." *Living Wilderness* (Winter 1974-75): 38-47.

Willauer, P.O. "To Meet A Challenge: Unique Outward Bound Sea School Program Aids the Difficult Transition from Youth to Manhood." *Yachting*, 125 (1969): 74-75.

Yetzbacher, Bill. "Six and Outward Bound." *Caps and Taps* (Fall 1970): 1-12.

"You Don't Have To Be Powerless." *Time*, October 18, 1968.

"Young Couple Pass 16-Day Survival Test." *Sunday Bulletin*. Philadelphia, September 28, 1969.

b. Pedagogy

Aden, R.C. and C. Crosthwait. "Teaching Field Choice and Student Teacher Personality." *Journal of Educational Research*, 59 (March 1966): 291-293.

"Adventure Curriculum: Physical Education." In *Project Adventure*. Hamilton-Wenham Regional High School, Hamilton, Mass., 1974.

Alfero, "New Contribution to Social Work Education - Conscientization." Paper given at the 41st International Congress of Schools of Social Work, August 8-11, 1972, Hague, Netherlands.

Alschuler, A.S. "Psychological Education." *Journal of Humanistic Psychology*, 9 (1969): 1-16.

Ammerman, Harry L. and W. H. Melching. *The Derivation, Analysis and Classification of Instructional Objectives*. HumRRO Technical Report 66-4. Washington, D.C.: HumRRO, 1966.

Archea and Eastman, eds. *E.D.R.A. II*. Environmental Design Research Association, 1970.

Argyris, Chris. "On the Future of Laboratory Education." *Journal of Applied Behavioral Science*, 3 (1967).

Armytage, W.H.G. *The German Influence on English Education*. London: Routledge and Kegan Paul, 1969.

Arnold-Brown, Adam. *Unfolding Character: The Impact of Gordonstoun*. London: Routledge and Kegan Paul, 1962.

Bettis, Stanley. "The Mountain Man of Modern Education." *Old Oregon*, 48 (1968): 19-23.

Borton, Terry. *Reach, Touch and Teach*. New York: McGraw-Hill, 1970.

Buck, C. William. A letter of directions to new students at Prescott College. Mimeographed. Prescott, Ariz., September 1970.

Carnegie Commission. *Less Time More Options*. 1971.

Carpenter, P. Cited by Basil A. Fletcher. *The Challenge of Outward Bound*. London: William Heinemann, 1971.

Cronbach, Lee J. and Patrick Suppes. *Research for Tomorrow's Schools: A Disciplined Inquiry for Education*. New York: Macmillan, 1969.

Dent, H.C. *British Education*. London: Longmans, Green, 1965.

Dewey, John. *Experience and Education*. London: Collier-Macmillan, 1963.

Dicksen, George E., et al. *The Characteristics of Teacher Education Students in the British Isles and the United States*. U.S. Department of Health, Education and Welfare, Office of Education, Co-operative Research Project No. 2518. Toledo, Ohio: University of Toledo Research Foundation, 1965.

Foster, Herbert L., Diane L. DeBacy, William D. Loockerman, and Roy K. Bartoo. "An Analysis of an Outward Bound Experience and Its Relationship to Teacher Education." Mimeographed. Buffalo: State University of New York, 1971.

Freire, Paulo. *Pedagogy of the Oppressed*. New York: Seabury, 1973.

Gowan, J.C. "The Use of the Adjective Check List in Screening Teaching Candidates." *Journal of Educational Research* (1956): 663-672.

Guba, Egon G. "A Model of Change for Instructional Development." Paper prepared for the Educational Media Conference, Indiana University, June 1968.

Hahn, Kurt. "Aims and Obstacles." Broadcast.October 22, 1950.

Hahn, Kurt. *The Badge*. Aberdeen: Aberdeen University Press, 1941.

Hahn, Kurt. Letter to the Editor. *The London Times*, November 3, 1936.

Hahn, Kurt. "Origins of the Outward Bound Trust." In David James, ed. Outward Bound. London: Routledge and Kegan Paul, 1957.

Hahn, Kurt. "Outward Bound." Address at the Annual Meeting of the Outward Bound Trust, July 20, 1960.

Hahn, Kurt. The Protection of Adolescents. Aberdeen: Aberdeen University Press, 1951.

Hahn, Kurt. "Short Term Schools." Trans. from German. In Neue Zuericher Zeitung, March 6, 1952.

Hahn, Kurt. "Speech at Conference at Harrogate." May 9, 1965. London: Outward Bound Trust.

Hogan, J.M. Beyond the Classroom. Reading, England: Educational Explorers, 1970.

Hogan, Jim. "The Contributions of Outdoor Activities to Education." Strive, 1 (January 1969): 8-13.

Holt, John. The Underachieving School. New York: Pitman, 1969.

Kallen, H.M. "Education as Survival." Educational Theory, 16 (January 1966): 71-84.

Kallenbach, Warren and Harold M. Hodges. Education and Society. Columbus, Ohio: Charles E. Merrill, 1963.

Kohlberg, L. "Humanistic and Cognitive Development Perspectives on Psychological Education." In Ralph L. Mosher and Norman A. Sprinthall, et al. "Psychological Education: A Means to Promote Personal Development During Adolescence." Counseling Psychologist, 2 (1971): 3-83.

Kohlberg, L. and R. Mayer. "Development as the Aim of Education." Harvard Education Review, 42 (1972): 457.

Lambert, J.L. "Personal Growth Facilitation by Academic Class Offerings." Unpublished report. Brigham Young University, 1975.

Lenz, Robert R. "Outward Bound - Education Through Experience." In Daniel U. Levine, ed. Models for Integrated Education. Worthington, Ohio: Charles A. Jones, 1971.

Leonard, George B. Education and Ecstasy. New York: Delacorte, 1968.

Lewis, F.H. "Teachers in a Depressed Area: Most Important Quality for the Teachers of Disadvantaged Children is Compassion." Clearing House, 30 (April 1956).

Lingo, T.D. "Dropping Back Into High School." Education, 86 (May 1966): 557-560.

Mager, Robert F. Developing Attitude Toward Learning. Palo Alto, Calif.: Fearon, 1968.

Mager, Robert F. Preparing Instructional Objectives. Palo Alto, Calif.: Fearon, 1962.

Maguire, Louis M. Observations and Analysis of the Literature on Change. Philadelphia: Research For Better Schools, Inc., 1970.

McKimstrey, H. "Education of Qualities and Capacities Essential to Teaching Success." Research Quarterly, December 1937.

Medrick, Frederick W. "Outward Bound and Higher Education." Mimeographed report. Colorado Outward Bound School, 1973.

Meyer, Don and Diane Meyer. To Know By Experience. Morganton, N.C.: Artcraft Press, 1973.

Murphy, Gardner. Freeing Intelligence Through Teaching. New York: Harper and Row.

Neilson, N.P. and A.O. Bronson. Problems in Physical Education. Englewood Cliffs, N.J.: Prentice-Hall, 1965.

The Principal as the School's Climate Leader: A New Role for the Principalship. A CFK Ltd. Occasional Paper, Spring 1971.

Ragan, William B. and C.B. Stendler. Modern Elementary Curriculum. 3rd ed. New York: Harcourt, Brace and World, 1966.

Randall, M.W., W.K. Waine, and M.J. Hickling. Objectives in Physical Education. London: G. Bell and Sons, 1966.

Raths, Louis, Merril Harmin, and Sidney B. Simon. Values and Teaching. Columbus, Ohio: Charles E. Merrill, 1966.

Reference Division, Central Office of Information, London. Education in Britain. Swindon, Wilshire: Swindon Press, 1966.

Rohrs, Hermann. "The Realm of Education in the Thought of Kurt Hahn." Comparative Education, 3 (November 1966): 21-33.

Rossman, Michael. On Learning and Social Change - Transcending the Totalitarian Classroom. New York: Vintage, 1972.

Schwarz, Karl. Die Kurzxchulen Kurt Hahns. Dusseldorf-Benrath (Germany): A. Henn Verlag, 1968.

Silberman, Charles. Crisis in the Classroom. New York: Random House, 1970.

Sizer, Theodore R. "Three Major Frustrations: Ruminations of a Retiring Dean." Phi Delta Kappan, 52 (June 1972).

Skidelsky, Robert. The English Progressive Schools. Baltimore: Penguin, 1969.

Skinner, B.F. The Technology of Teaching. New York: Appleton-Century-Crofts, 1968.

Smith, Nat. "Phillips Academy." What's Happening?, February 1969.

Smith, Roy. "Prescott College." What's Happening?, February 1969.

Snyder, R.A. and H.A. Scott. Professional Preparation in Health, Physical Education, and Recreation. New York: McGraw-Hill, 1954.

Wardle, David. English Popular Education, 1780-1970. Cambridge: Cambridge University Press, 1970.

Westwood, L.T. "The Role of the Teacher." Educational Research, 9 (February 1967): 122-134.

c. Evaluation

Adams, L., et al. "Evaluation of One Type of Non-Traditional Program of Higher Education." Paper presented at the annual forum of the Association for Institutional Research, 1975.

Alkin, Marvin C. Towards an Evaluation Model: A Systems Approach. Working Paper No. 4. Los Angeles: Center for the Study of Evaluation of Instruction Program (CSEIP), University of California, August 1967.

Alkin, Marvin C. "The Use of Behavioral Objectives in Evaluation: Relevant or Irrelevant?" Paper presented to the Eighteenth Annual ETS Western Regional Conference on Testing Problems, San Francisco, Calif., May 1969.

Alschuler, Alfred S. "Psychological Education." Journal of Humanistic Psychology, 9 (Spring 1966): 1-16.

American Educational Research Association. Committee on the Criteria of Teacher Effectiveness. Second Report. Journal of Educational Research, 46 (1953): 641-658.

Armor, D.J. and A.S. Couch. Data-Text Primer. New York: Free Press, 1972.

Bloom, Benjamin S., ed. Taxonomy of Educational Objectives: The Classification of Educational Goals, Handbook I: Cognitive Domain. New York: David McKay, 1956.

Bolton, Dale L. "Evaluating School Personnel." National Elementary Principal, February 1973.

Bowen, H.M., B. Anderson, and D. Promisel. "Studies of Divers' Performance During the SEALAB II Project." Human Factors, 8 (1966): 183-199.

Bower, C.P., W.L. Padia, and G.V. Glass. "TMS: Two Fortran IV Programs for Analysis of Time-Series Experiments." Boulder: Laboratory of Educational Research, University of Colorado, 1974.

Campbell, Donald T. "Quasi-experimental Designs." In H.W. Riecken, et al., eds. Social Experimentation as a Method For Planning and Evaluating Social Programs. New York: Academic Press, 1974.

Campbell, Donald T. and Julian C. Stanley. Experimental and Quasi-Experimental Designs for Research. Chicago: Rand McNally, 1966.

Ciarlo, J.A. and J. Reihman. "The Denver Community Mental Health Questionnaire: Development of a Multi-dimensional Program Evaluation Instrument." Paper presented at the American Psychological Association Convention, New Orleans, La., September 1974.

Clark, Rodney A. and Walcott H. Beatty. "Learning and Evaluation." In Learning Theory and Evaluation: Evaluation as Feedback and Guide. Prepared by the Association for Supervision and Curriculum Development, Yearbook Committee. Washington, D.C., 1967.

Clarke, David H. and H. Harrison Clarke. Research Processes in Physical Education, Recreation and Health. Englewood Cliffs, N.J.: Prentice-Hall, 1970.

Clarke, H. Harrison and David H. Clarke. Advanced Statistics: Supplement to Research Processes in Physical Education, Recreation and Health. Oregon: By the Authors, 1969.

Coleman, James S. The Equality of Educational Opportunity. Washington, D.C.: U.S. Government Printing Office, 1966.

Colorado Outward Bound School. "Girls Course Evaluation." Mimeographed. Denver: Colorado Outward Bound, Inc., 1971.

Cook, W.W., C.H. Leeds, and R. Callis. The Minnesota Teacher Attitude Inventory. New York: Psychological Corporation, 1951.

Copp, Barry D. "Lincoln-Sudbury Regional High School Alternate Semester: An Evaluation." Mimeographed. Sudbury, Mass.: Lincoln-Sudbury R.H.S., 1972.

"Course Impressions of an 18-Year-Old Glasgow Girl." Outward Bound (October 1967): 9.

Cronbach, Lee J. Essentials of Psychological Testing. 2nd ed. New York: Harper and Row, 1960.

Cronbach, Lee J. "Evaluation for Course Improvement." Teachers College Record, 64 (1963).

Cyphers, Vincent A. "A Study to Determine the Significant Outdoor Experience for Elementary Teachers." Ed.D. dissertation, Colorado State College, 1961.

Dean, William C., W. Hart, and J. Morris. "An Evaluation of the Wasson Experiential Education Seminar." Mimeographed. Colorado Springs: Wasson High School, 1974.

Deppe, A.H. "Performance Criteria in Diver Training." Perceptual and Motor Skills, 32 (1971): 718.

Ebel, R.L., ed. Encyclopedia of Educational Research. 4th ed. New York: Macmillan, 1969.

Educational Planning Service. "Behavioral Outcomes, Q-Sort: Concordia Teachers College, Seward, Nebraska." Greeley: Colorado State College, 1961.

Elledge, Gerald E. "East High School Senior Seminar: 1973 Evaluation." Mimeographed. Denver: Denver Public Schools, 1973.

An Evaluation of Compensatory Educational Programs for Institutionalized Children. Title I, ESEA. U.S. Department of Health, Education, and Welfare, 1971.

"Evaluation of Outward Bound Teachers' Practica." University of Massachusetts, D-T3, D-36T, C-39T, Summer 1969.

Fersch, Ellsworth and Mary Smith. "Project Adventure: Final Qualitative Evaluation." Mimeographed. Hamilton, Mass.: Hamilton-Wenham Regional High School, 1971.

Fletcher, Basil A. "The Fletcher Report: A Synopsis of a Follow-up Study of Students of Outward Bound Schools in Great Britain." Mimeographed. London: Outward Bound Trust, 1969.

Fletcher, Basil A. Outward Bound Schools in Great Britain: A Follow-up Study. Bristol, England: University of Bristol Press, 1970.

Fornander, Garold A. "Report on Mitchell Senior Seminar." Master's report, University of Colorado, 1974.

Fox, David J. The Research Process in Education. New York: Holt, Rinehart and Winston, 1969.

Frederiksen, N. "The Evaluation of Personal and Social Qualities." In College Admissions No. 1. New York: College Entrance Exam Board, 1954.

Freeman, W., B. Spilka, and R. Mason. Delinquency and the Outward Bound Program: An Empirical Evaluation of a Radical Approach to Delinquency Control. Denver: Colorado Outward Bound School, 1969.

Gage, N.L., ed. Handbook of Research on Teaching. Chicago: Rand McNally, 1963.

Garrett, Henry E. Statistics in Psychology and Education. 5th ed. New York: David McKay, 1958.

Gillette, J.H. "A Study of Attitude Changes as a Result of Outward Bound Mountain Ski School, C-60." Ed.D. dissertation, University of Northern Colorado. 1971. Ann Arbor, Mich.: University Microfilms, 1971, No. 72-3260.

Glass, G.V. "The Growth of Evaluation Methodology." Research Paper No. 27. Boulder: Laboratory of Educational Research, University of Colorado, March 1969.

Glass, Gene V. "On Rereading Stake." Evaluation Comment, 4 (February 1973), Center for the Study of Evaluation, University of California, Los Angeles.

Glass, Gene V. and Julian C. Stanley. Statistical Methods in Education and Psychology. Englewood Cliffs, N.J.: Prentice-Hall, 1970.

Glass, Gene V., V.L. Willson, and J.M. Gottman. Design and Analysis of Time-Series Experiments. Boulder: Colorado Associated University Press, 1975.

Godfrey, Robert J. "A Review of Research and Evaluation Literature on Outward Bound and Related Educational Programs." Paper presented at the Conference on Experiential Education, Estes Park, Colo., October 8-11, 1974.

Goetzinger, Cornelius P. "A Re-evaluation of Heath Railwalking Test." Journal of Educational Research, 54 (1961): 187-191.

Greene, Edward B. Measurements of Human Behavior. Rev. ed. New York: Odyssey, 1952.

Griffiths, Daniel E. Administrative Theory. New York: Appleton-Century-Crofts, 1959.

Grilley, Helen Elaine. "Development of an Instrument for Evaluating Resident Outdoor Education Laboratory School Programs." Ed.D. dissertation, Colorado State College, 1966.

Guba, Egon G. and David L. Stufflebeam. "Evaluation: The Process of Stimulating, Aiding, and Abetting Insightful Action." Address delivered at the Second National Symposium for Professors of Educational Research, Boulder, Colo., November 21, 1968.

Guilford, J.P. and Benjamin Fruchter. Fundamental Statistics in Psychology and Education. 5th ed. New York: McGraw-Hill, 1973.

Hammett, V.B.O. "Psychological Changes with Physical Fitness Training." Canadian Medical Association Journal, 96 (March 25, 1967): 764-769.

Hanfmann, Eugenia. "Projective Techniques in the Assessment Program of the Office of Strategic Services." (1947) In Anne Anastasi, ed. Testing Problems in Perspective. Washington, D.C.: American Council on Education, 1966.

Harmon, P. "Toward the Measurement of Affective Education." Paper presented at the Conference on Outdoor Pursuits in Higher Education, Appalachian State University, Boone, N.C., February 1974.

Harrison, Roger. Problems in the Design and Interpretation of Research on Human Relations Training. Washington, D.C., 1967.

Hauserman, Billy Dale. "The Effect of an Orientation to the Outdoors on Teaching Behavior in the Classroom." Ed.D. dissertation, State University of New York, Buffalo, 1963.

Hawkes, Glen, et al. Evaluation of Outward Bound Teachers' Practica, Summer, 1969. Reston, Va.: Outward Bound, Inc., 1969.

Hays, William. Statistics. New York: Holt, Rinehart and Winston, 1963.

Heaps, R.A. and C.T. Thorstenson. "A Follow-up Study of Outdoor Survival Participants." Therapeutic Recreation Journal, 2 (1972): 41-44.

Helmstadter, G.C. Principles of Psychological Measurement. New York: Appleton-Century-Crofts, 1964.

Herriot, Robert E. and Nancy H. St. John. Social Class and the Urban School. New York: Wiley, 1966.

Heyns, R.W., J. Veroff, and J.W. Atkinson. "A Scoring Manual for the Affiliation Motive." In J.W. Atkinson, ed. Motives in Fantasy, Action and Society. Princeton, N.J.: Van Nostrand, 1958.

Hillway, Tyrus. Handbook of Educational Research. Boston: Houghton Mifflin, 1969.

Hotelling, H. "The Selection of Variates for Use in Prediction, With Some Comments on the General Problem of Nuisance Parameters." Annals of Mathematical Statistics, 11 (1940): 271-283. Cited by J.P. Guilford and Benjamin Fruchter. Fundamental Statistics in Psychology and Education. 5th ed. New York: McGraw-Hill, 1973.

Hyman, H.H., C.R. Wright, and T.K. Hopkins. Applications of Methods of Evaluation: Four Studies of the Encampment for Citizenship. Berkeley: University of California Press, 1962.

Johnson, D.R. "Evaluation of Two Adventure Programs." Master's thesis. University of Calgary, Alberta, Canada, 1972.

Jones, F. Geoffrey. "An Affective Evaluation of A School Camp." Master's thesis, University of Calgary, Alberta, Canada, 1972.

Jones, R.H. An Analysis of the Oregon State Hospital Experiment in Outdoor Adventure. Technical report. Salem, Ore.: Oregon State Hospital, 1972.

Jourard, S.M. Some Observations by a Psychologist of the Training Program at Camp Crozier. Washington, D.C.: Peace Corps, Research Division, 1963.

Kearney, N.C. and P.D. Rocchio. "The Relation between the Minnesota Teacher Attitude Inventory and Subject Matter Taught by Elementary Teachers." Educ. Admin. and Superv., 41 (1955): 358-60.

Kelly, Francis J., Donald L. Beggs, and Keith McNeil. Research Design in Behavioral Sciences: Multiple Regression Approach. Carbondale: Southern Illinois University Press, 1969.

Kelman, Herbert C. "Manipulation of Human Behavior: An Ethical Dilemma for the Social Scientist." Journal of Social Issues, 21 (1965): 33.

Kemmis, Stephen. Telling It Like It Is: The Problem of Making a Portrayal of an Educational Program. Draft. University of Illinois at Urbana-Champaign, January 1974.

Kepple, Geoffrey. Design and Analysis: A Researcher's Handbook. Englewood Cliffs, N.J.: Prentice-Hall, 1973.

Kerlinger, F.N. Foundations of Behavioral Research. New York: Holt, Rinehart and Winston, 1964.

Kirk, Roger E. Experimental Design: Procedures for the Behavioral Sciences. Belmont, Calif.: Brook, Cole, 1968.

Klausmeier, H.J., A. Beeman, and I.J. Lehmann. "Comparisons of Organismic Age and Regression Equations in Predicting Achievement in Elementary School." Journal of Educational Psychology, 49 (1958): 182-186.

Kourilsky, Marilyn. "An Adversary Model for Educational Evaluation." Evaluation Comment, 4 (June 1973). Center for the Study of Evaluation, University of California, Los Angeles.

Krathwohl, David R., Benjamin S. Bloom, and Bertram B. Masia. Taxonomy of Educational Objectives: The Classification of Educational Goals, Handbook II: Affective Domain. New York: David McKay, 1964.

Kruskal, J.B. "Multidimensional Scaling by Optimizing Goodness-of-Fit to a Non-Metric Hypothesis." Psychometrika, 29 (1964): 115-129.

Levine, Murray. "Scientific Method and the Adversary Model: Some Preliminary Suggestions." Evaluation Comment, 4 (June 1973), Center for the Study of Evaluation, University of California, Los Angeles.

Lewy, Arieh. "The Empirical Validity of Major Properties of a Taxonomy of Affective Educational Objectives." Journal of Experimental Education, 36 (Spring 1968).

MacKinnon, Donald W. "Tests for the Measurement of Personal Effectiveness." (1951) In Anne Anastasi, ed. Testing Problems in Perspective. Washington, D.C.: American Council on Education, 1966.

Matthai, Robert A. "The Effect of Outward Bound on Sense of Competence." Ph.D. dissertation, Harvard University, 1973.

McCall, Robert B. Fundamental Statistics for Psychology. New York: Harcourt, Brace and World, 1970.

McCall, W.A. Measurement of Teacher Merit. Raleigh, N.C.: State Department of Public Instruction, 1952.

Meehl, P.E. Clinical Versus Statistical Prediction: A Theoretical Analysis and Review of the Evidence. Minneapolis: University of Minnesota Press, 1954.

Mendenhall, William. Introduction to Linear Models and the Design and Analysis of Experiments. Belmont, Calif.: Wadsworth, 1968.

Merrifield, Philip R. "Trends in the Measurement of Special Abilities." Review of Educational Research, 35 (February 1965): 25-33.

Merrill, M. David. "Necessary Psychological Conditions for Defining Instructional Outcomes." Educational Technology, August 1971.

Meyer, Dan. "Follow-up Study of North Carolina Outward Bound School Graduates." Mimeographed. 1972.

Moos, Rudolf H. "Psychological Techniques in the Assessment of Adaptive Behavior." In Coelho, Hamburg, and Adams, eds. Coping and Adaptation. New York: Basic Books, 1974.

Munsey, William and Douglas Sjogren. Evaluation of the Action-Interaction Curriculum Project, "Dare-to-Care." Human Factors Research Laboratory, Colorado State University, 1970.

Murray, Henry A. "Assessment of the Whole Person." Proceedings of the Meeting of Military Psychologists and Psychiatrists. College Park: University of Maryland Press, 1945.

Murray, Henry A. "Drive, Time, Strategy, Measurement, and Our Way of Life." In G. Lindzey, ed. Assessment of Human Motives. New York: Rinehart, 1958.

Naches, Arnold M. and Janet A. Roberts. An Evaluation of Several Effects of the Title III ESEA "Dare to Care" Program on Involved Students, Faculty, Parents, and Community Members. Denver: Adams County School District No. 14, 1967.

Nelson, Eugene C. "Predispositions and Attitudinal Changes in Outward Bound and Human Relations Groups." Unpublished manuscript. Dartmouth College, 1970.

Nie, Norman H. and Hull C. Hadlai. Statistical Package for the Social Sciences. Chicago: University of Chicago Press, 1973.

Nowlis, D., H. Watters,and E. Wortz. "Habitability Assessment Program." In J. W. Miller, J. G. VanDerwalker, and R.A. Waller, eds. Scientists in the Sea. USDI report. Washington, D.C.: U.S. Government Printing Office, 1971.

Osgood, C.E., G.J. Suci, and T.M. Tannenbaum. The Measurement of Meaning. Urbana: University of Illinois Press, 1957.

Ostle, B. Statistics in Research. Ames: Iowa University Press, 1963.

Popham, W. James. Educational Statistics: Use and Interpretation. New York: Harper and Row, 1967.

Preston, H.O. The Development of a Procedure for Evaluating Officers in the U.S. Air Force. Pittsburgh: American Institute of Research, 1948.

Ratliff, L. Stanley. "An Evaluation of the Experiential Learning Program at East High School, Denver." Report. University of Colorado, 1972.

Richards, Mary S. "Two Exploratory Studies of Denver West High School Students at Colorado Outward Bound School." Mimeographed report. Denver: Colorado Outward Bound School, 1966.

Ryans, David G. "Measurement and Prediction of Teacher Effectiveness." (1958) In Anne Anastasi, ed. Teaching Problems in Perspective. Washington, D.C.: American Council on Education, 1966.

Sax, Gilbert. Empirical Foundations of Educational Research. Englewood Cliffs, N.J.: Prentice-Hall, 1968.

Schroder, H.M. and J. Carrington. "A Social Judgment Dictionary for Categorizing the Responses of Lower Class Youths." Mimeographed. Princeton University Social Psychology Laboratory Library, 1967.

Schroder, H.M. and R.E. Lee, III. "A Dictionary of Occupational Choices Rated Along Three Dimensions." Mimeographed. Princeton University Social Psychology Laboratory Library, 1966.

Schroder, H.M. and R.E. Lee. Effects of Outward Bound Training on Urban Youth. Reston, Va.: Outward Bound, Inc., 1967.

Schulze, Joseph R. An Analysis of the Impact of Outward Bound on Twelve High Schools. Reston, Va.: Outward Bound, Inc., 1971.

Schulze, Joseph R. Evaluation of the Effects of Outward Bound Training Upon Dartmouth College Students, and New Hampshire Secondary School Students. Reston, Va.: Outward Bound, Inc., 1970.

Scott, W.A. "Attitude Measurement." In Handbook of Social Psychology, Vol. 2. Rev. ed. Reading, Mass.: Addison-Wesley, 1968.

Scriven, Michael. "Goal Free Evaluation." In Ernest House, ed. School Evaluation: The Politics and Process. Berkeley, Calif.: McCutchan, 1973.

Scriven, Michael. "The Methodology of Evaluation." In Robert E. Stake, ed. Perspectives of Curriculum Evaluation. AERA Monograph 1. Chicago: Rand-McNally, 1967.

Shaw, M.E. and J. Wright. Scales for the Measurement of Attitudes. New York: McGraw-Hill, 1967.

Shepard, L. "Construct Validation of Self-Acceptance." Ph.D. dissertation, University of Colorado, 1972.

Siegel, Sidney. Nonparametric Statistics for the Behavioral Sciences. New York: McGraw-Hill, 1956.

Simpson, Ronald. "Evaluating Non-Cognitive Achievement of High School Biology Students." American Biology Teacher (November 1973): 441-453.

Smith, Henry L. and Johnnie R. Smith. An Introduction to Research in Education. Bloomington, Ind.: Educational Publications, 1959.

Smith, Mary Anne Wakefield. "An Investigation of the Effects of an Outward Bound Experience on Selected Personality Factors and Behaviors of High School Juniors." Ph.D. dissertation, University of Oregon. 1971. Ann Arbor, Mich.: University Microfilms, 1971, No. 72-8601.

Smith, M.L., Roy Gabriel, James Schott, and W.L. Padia. Evaluation of Effects of Outward Bound: Part One -- Research Report; Part Two -- Participant Observation. Boulder: Bureau of Educational Field Services, University of Colorado, 1975.

Smith, M.L., Roy Gabriel, and Ronald D. Anderson. Final Report: Project to Design an Evaluation of Outward Bound. Boulder: Bureau of Educational Field Services, University of Colorado, 1973.

Solomon, R.L. "An Extension of Control Group Design." Psychological Bulletin, 46 (1949): 137-150.

Spirach, G., J. Spotts, and P. Haines. Deveraux Adolescent Behavior Rating Scale. Devon, Pa.: Deveraux Foundation, 1967.

Stake, Robert E. "An Approach to the Evaluation of Instructional Programs (Program Portrayal vs. Analysis)." Paper presented at Annual Meeting of American Educational Research Association, Chicago, April 4, 1972.

Stake, Robert E. "The Countenance of Educational Evaluation." Teachers College Record, 68 (1967): 523-571.

Stake, Robert E. Generalizability of Educational Program Evaluation. Urbana: Center for Instructional Research, University of Illinois, 1969.

Stake, Robert E. and Craig Gjerde. An Evaluation of T City: The Twin City Institute for Talented Youth. Urbana: Center for Instructional Research and Curriculum Evaluation, University of Illinois, 1971.

Stephenson, William. The Study of Behavior: Q-Technique and Its Methodology. Chicago: University of Chicago Press, 1953.

Stuckey, James Merit. "Changes in Self-Descriptions of Teachers as a Result of an Outward Bound Experience." Ph.D. dissertation, American University, 1974.

Stufflebeam, Daniel L. Evaluation as Enlightenment for Decision-Making. Columbus: Evaluation Center, Ohio State University, January 19, 1968.

Sudnow, David. "Temporal Parameters of Interpersonal Observation." In D. Sudnow, ed. Studies in Social Interaction. New York: Free Press, 1972.

Thurstone, L.L. "Attitudes Can Be Measured." In Martin Fishbein, ed. Attitude Theory and Measurement. New York: Wiley, 1967.

Thurstone, L.L. The Measurement of Values. Chicago: University of Chicago Press, 1959.

Thurstone, Thelma Gwinn. An Evaluation of Educating Mentally Handicapped Children in Special Classes and in Regular Classes. Cooperative Research Project Contract Number, OE - SAE - 6452, of the U.S. Office of Education, School of Education, University of North Carolina, 1959.

Turner, W.G. "An Analysis to Determine Significant Administrative Procedures Used in the Establishment and Operation of Selected Resident Outdoor Laboratory School Programs." Ed.D. dissertation, Colorado State College, 1967.

Tyler, Ralph W. "The Functions of Measurement in Improving Instruction." In E.F. Lindquist, ed. Educational Measurement. Washington, D.C.: American Council on Education, 1951.

Wert, James E., Charles O. Neidt, and J. Stanley Ahmann. Statistical Methods in Educational and Psychological Research. New York: Appleton-Century-Crofts, 1954.

Wilhelms, Fred T. "Evaluation as Feedback." In Evaluation of the Curriculum: Evaluation as Feedback and Guide. Prepared by the Association for Supervision and Curriculum Development, Yearbook Committee. Washington, D.C., 1967.

Winer, B. Statistical Principles in Experimental Design. 2nd ed. New York: McGraw-Hill, 1971.

Wortman, P.M. "Evaluation Research: A Psychological Perspective." American Psychologist, 30 (1975): 562-75.

Zubin, Joseph. "Clinical Versus Actuarial Prediction: A Pseudo-Problem." (1955) In Anne Anastasi, ed. Testing Problems in Perspective. Washington, D.C.: American Council on Education, 1966.

2. Psychology

a. Self-concept

Adams, Walter D. "Survival Training: Its Effect on the Self-Concept and Selected Personality Factors of Emotionally Disturbed Adolescents." Ph.D. dissertation, Utah State University, 1969. Ann Arbor, Mich.: University Microfilms, 1969, No. 70-2378.

Alexander, Albert A. "The Effect of a Residential Camping Experience on the Self-Concept of Boys from Low Income Families." Ph.D. dissertation, Boston University, 1969.

Allport, Gordon W. "The Ego in Contemporary Psychology." *Psychological Review*, 50 (1943): 451-478.

Aronson, Elliot and David R. Mettee. "Dishonest Behavior as a Function of Differential Levels of Induced Self-Esteem." *Journal of Personality and Social Psychology*, 9 (1968): 121-127.

Atchison, C. "A Comparative Study of the Self-Concept of Behavior Problem and Non-Behavior Problem of High School Boys." Ph.D. dissertation, Indiana University, 1958. Cited in W.H. Fitts. *Tennessee Self-Concept Scale Manual*. Nashville, Tenn.: Counselor Recordings and Tests, 1965.

Barter, James T. *The Effect of the Outward Bound Experience on the Self-Image of Adolescent Boys*. University of Colorado Medical Center, 1966.

Becker, M. "Changes in Self-Affect, Perceived Characteristics and Internal Control in Relationship to Participation in the Winter, 1974 Eliminating Self-Defeating Behavior Workshops." Unpublished paper. Brigham Young University Personal Development Center, June 1974.

Berger, E.M. "The Relation Between Expressed Acceptance of Self and Expressed Acceptance of Others." *Journal of Abnormal and Social Psychology*, 47 (1952): 778-792.

Boston, G.N. and K.L. Kew. "The Self-Concept of the Unmarried Mother in the Florence Crittenton Home." (1964) In William Hammer, ed. "The Self-Concept of Delinquents." *Nashville Mental Health Center Research Bulletin*, 3 (1968): 27.

Clifford, E. "Connotative Meanings of Self- and Astham-Related Concepts for Subgroups of Asthmatic Children." *Journal of Psychosom. Res.*, 8 (1965): 467-475.

Clifford, Edward and Miriam Clifford. "Self-Concepts Before and After Survival Training." British Journal of Social and Clinical Psychology, 6 (May 1967): 241-248.

Coopersmith, S. "A Method of Determining Types of Self-Esteem." Journal of Abnormal and Social Psychology, 59 (1959): 87-94.

Coopersmith, Stanley. The Antecedents of Self-Esteem. San Francisco: W.H. Freeman, 1967.

Crites, J.O. "Test Reviews: Tennessee Self-Concept Scale." Journal of Counseling Psychology, 12 (1965): 330-331.

Crumbaugh, J. "Cross-Validation of Purpose-in-Life Test Based on Frankl's Concepts." Journal of Individual Psychology, 24 (1968): 74-81.

Davis, Robert W. "The Fear Experience in Rock Climbing and Its Influence Upon Future Self-Actualization." Ph.D. dissertation, University of Southern California, 1972. Ann Arbor, Mich.: University Microfilms, 1972, No. 72-17, 462.

Fannin, L. and M.B. Clinard. "Differences in the Conception of Self as a Male Among Lower and Middle Class Delinquents." Social Problems, 13 (1965): 205-214.

Fink, M.B. "Self-Concept As It Relates to Academic Underachievement." California Journal of Educational Research, 13 (1962): 57-62.

Fitts, William H. Interpersonal Competence: The Wheel Model. Dede Wallace Center Monograph No. 2. Nashville, Tenn.: Counselor Recordings and Tests, 1970.

Fitts, William H. The Self-Concept and Self-Actualization. Research Monograph No. 3. Nashville, Tenn.: Counselor Recordings and Tests, 1971.

Fitts, William H. Tennessee Self-Concept Scale. Nashville, Tenn.: Counselor Recordings and Tests, 1965.

Fitts, William H. Tennessee Self Concept Scale Manual. Nashville, Tenn.: Counselor Recordings and Tests, 1965.

Fitts, William H. and William T. Hamner. "The Self-Concept and Delinquency." Nashville Mental Health Center Monograph, No. 1 (1969).

Gergen, Kenneth J. The Concept of Self. New York: Holt, Rinehart and Winston, 1971.

Gergen, Kenneth J. "Multiple Identity: The Healthy, Happy, Human Being Wears Many Masks." Psychology Today, 2 (1972): 31-35.

Gibb, Jack R. "The Effects of Human Relations Training." In Allen Bergin and Sol L. Garfield, eds. Handbook of Psychotherapy and Behavior Change. New York: Wiley, 1971.

Gough, Harrison G. "The Adjective Check List as a Personality Assessment Research Technique." Psychological Reports, 6 (1969): 107-122.

Gough, Harrison and Alfred Heilbrun. The Adjective Check List Manual. Palo Alto, Calif.: Consulting Psychologists Press, 1965.

Hanlon, Thomas E., Peter Hofstaetter, and James P. O'Connor. "Congruence of Self and Ideal Self in Relation to Personality Adjustment." Journal of Consulting Psychology, 18 (1954): 215-218.

Hendricks, J.V. "The Elimination of Self-Defeating Behaviors and Their Relationship to Study Effectiveness, Self-Concept and Anxiety." Ph.D. dissertation, Brigham Young University, 1972.

Hendy, Christopher M. "Outward Bound and Personality: 16 PF Profiles of Instructors and Ipsative Changes in Male and Female Students Sixteen to Nineteen Years of Age." Ph.D. dissertation, University of Oregon, 1975.

Howard, G.R. "The Effects of Outdoor Survival Training on Self-Concept." Unpublished field project. Brigham Young University, 1970.

Howard, G., R.A. Heaps, and G. T. Thorstenson. "Self-Concept Changes Following Outdoor Survival Training." Mimeographed. Brigham Young University, 1972.

Johnson, W.R., B.R. Fretz, and Julia A. Johnson. "Changes in Self-Concept During a Physical Development Program." Research Quarterly, 39 (1968): 560-565.

Kaplan, R. "Project Outlook: Role of Summer Outdoor Programs in Interests and Self-views." Unpublished manuscript. University of Michigan, 1973.

Kelly, Earl C. "The Fully Functioning Self." In Perceiving, Behaving, Becoming: National Education Association Yearbook. Washington, D.C.: National Education Association, 1962.

Kelly, Francis J. and Daniel J. Baer. "Jesness Inventory and Self-Concept Measures for Delinquents Before and After Participation in Outward Bound." Psychological Reports, 25 (1969): 719-724.

Koepke, Sharon M. "The Effects of Outward Bound Participation upon Anxiety and Self-Concept." Colorado Outward Bound School, 1973. Eric Abstracts.

Kohlberg, L. and C. Gilligan. "The Adolescent as a Philosopher: The Discovery of the Self in a Post-Conventional World." Daedalus, 100 (1971): 1051-1085.

Lipsitt, L.P. "A Self-Concept Scale for Children and Its Relationship to the Children's Form of the Manifest Anxiety Scale." Child Development, 29 (1958): 463-472.

MacKinnon, Donald W. "Creativity and Images of the Self." In Robert W. White, ed. The Study of Lives. New York: Anherton, 1963.

Meiser, Patricia Hofmann. "The Self-Perceptions of Intercollegiate Field Hockey Candidates at the Beginning and End of a Season of Competition." Master's thesis, Pennsylvania State University, 1971.

Moustakas, Clark E., ed. "True Experience and the Self." In The Self: Exploration in Personal Growth. New York: Harper and Row, 1956.

Neale, Daniel C., Robert J. Sonstroem, and Kenneth F. Metz. "Physical Fitness, Self-Esteem, and Attitudes Towards Physical Activity." Research Quarterly, 49 (1969): 743-749.

Nelson, Sara Marie. "An Investigation of the Relationship Between the Real Self-Concept, Ideal Self-Concept and Motor Ability of Eighth Grade Girls in Physical Education." Master's thesis, University of North Carolina at Greensboro, 1965.

Parker, George V.C. "Sex Differences in Self-Description on the Adjective Check List." Educational and Psychological Measurement, 29 (1969): 99-113.

Payne, J., A.W. Drummond, and M. Lunghi. "Changes in Self-Concepts of School-Leavers who Participated in an Artic Expedition." British Journal of Educational Psychology, 40 (1970): 211-216.

Piety, K.R. "The Role of Defense in Reporting on the Self-Concept." Ph.D. dissertation, Vanderbilt University, 1958. Cited in W.H. Fitts. Tennessee Self-Concept Scale Manual. Nashville, Tenn.: Counselor Recordings and Tests, 1965.

Read, Donald. "The Influence of Competitive and Non-Competitive Programs of Physical Education on Body Image and Self-Concept." Ph.D. dissertation, Boston University, 1968.

Rosen, Gerald M. and Alan O. Ross. "Relationship of Body Image to Self-Concept." Journal of Consulting and Clinical Psychology, 32 (1968): 100.

Rosenberg, Morris. "Psychological Selectivity in Self-Esteem Formation." In Carolyn W. Sherif and Muzafer Sherif, eds. Attitude, Ego-Involvement, and Change. New York: Wiley, 1967.

Rosenberg, Morris. Society and the Adolescent Self-Image. Princeton, N.J.: Princeton University Press, 1965.

Scarr, Sandra. "The Origins of Individual Differences in Adjective Check List Scores." Journal of Consulting Psychology, 30 (1966): 354-357.

Secord, P. and S. Jourard. "The Appraisal of Body-Cathexis: Body-Cathexis and the Self." Journal of Consulting Psychology, 17 (1953): 343-347.

Shostrom, Everett L. "An Inventory for the Measurement of Self-Actualization." Educational and Psychological Measurement, 24 (1964): 207-218.

Shostrom, Everett L. Man, the Manipulator: The Inner Journey from Manipulation to Actualization. New York: Abingdon, 1967.

Stimpson, D.V. and D.M. Pederson. "Effects of a Survival Training Experience Upon Evaluation of Self and Others for Underachieving High School Students." Perceptual and Motor Skills, 31 (1970): 337-338.

Stock, D. "An Investigation into the Interrelations Between the Self-Concept and Feelings Directed toward Other Persons and Groups." Journal of Consulting Psychology, 13 (1949): 176-180.

Stone, Marjorie. "The Relationship of Selected Physical Activities to Self-Concept of Handicapped College Students." Ph.D. dissertation, University of Missouri, 1970.

Suinn, Richard W. "The Relationship between Self-Acceptance and Acceptance of Others: A Learning Theory Analysis." Journal of Abnormal and Social Psychology, 63 (1961): 37-42.

VanDenter, Norbert. "The Relationship Between Sports Participation, Attitudes Toward Sports, Socioeconomic Status and the Self-Concepts of Male Problem Youth." Ph.D. dissertation, University of Northern Colorado, 1970.

Van der Wilt, Robert B. and Ronald A. Klocke. "Self-Actualization of Females in an Experimental Orientation Program." Paper presented in the National Association of Women's Deans and Counselors publication, Spring 1971.

Wendland, Marilyn. "Self-Concept in Southern Negro and White Adolescents as Related to Rural-Urban Residence." Ph.D. dissertation, University of North Carolina, 1968.

Wetmore, Reagh C. "The Influence of Outward Bound School Experience on the Self-Concept of Adolescent Boys." Ed.D. dissertation, Boston University, 1972. Ann Arbor, Mich.: University Microfilms, 1972, No. 72-25, 475.

Wylie, Ruth C. The Self-Concept. Lincoln: University of Nebraska Press, 1961.

b. Stress

Appley, M. and R. Trumbull. "On the Concept of Psychological Stress." In M. Appley and R. Trumbull, eds. Psychological Stress. New York: Appleton-Century-Crofts, 1967.

Archibald, H.C. and R.D. Tuddenham. "Persistent Stress Reactions After Combat." Archives of General Psychiatry, 12 (1965): 475-481.

Basowitz, Harold, Harold Persky, Sheldon Korchin, and Roy Grinker. Anxiety and Stress. New York: McGraw-Hill, 1955.

Beam, J.C. "Serial Learning and Conditioning Under Real Life Stress." Journal of Abnormal Psychology, 51 (1955): 543-551.

Bey, D.R. "Group Dynamics and the 'F.N.G.' in Vietnam: A Potential Focus of Stress." International Journal of Group Psychotherapy, 22 (1972): 22-30.

Biderman, A.D. "Life and Death in Extreme Captivity Situations." In H. Appley and R. Trumbull, eds. Psychological Stress. New York: Appleton-Century-Crofts, 1967.

Cain, Leila S. "Stress in Visualized Threatening Situations." Paper read at Eastern Psychological Association Annual Meeting in New York, April 15-17, 1971.

Carron, Albert V. "Motor Performance Under Stress." Research Quarterly, 39 (1968): 463-469.

Caudill, William, et al. In Symposium on Stress. Washington National Research Council and Walter Reed Army Medical Center, 1953.

Daniel, J. "Adaptation to Stress and Some Traits of Personality." Ergonomics, 16 (1973): 331.

Davis, Robert W. "Growth Through Stress." CAHPER Journal, 31 (September/October 1968): 14.

Doll, R.E., E.K.E. Gunderson, and D.H. Ryman. "Relative Predictability of Occupational Groups and Performance Criteria in an Extreme Environment." Journal of Clinical Psychology, 25 (1969): 399-402.

Fenz, Walter D. and Seymour Epstein. "Stress: In the Air." Psychology Today, 3 (1969): 27-28.

Ferguson, Henry. "Shock Treatment for Teenagers." Today's Health, 45 (April 1967): 28-33.

Ford, C.V. and R.C. Spaulding. "The Pueblo Incident: A Comparison of Factors Related to Coping with Extreme Stress." Archives of General Psychiatry, 29 (1973): 340-343.

Forer, B.R. "The Therapeutic Value of Crisis." Psychological Reports, 13 (1963): 275-281.

Fritz, C.E. "Disaster." In R.K. Merton and R.A. Nisbet, eds. Contemporary Social Problems. New York: Harcourt, Brace, and World, 1961.

Gividen, G.M. "Stress in Airborne Training as Related to the Self-Concept Motivation and Biographical Factors." Master's thesis, Vanderbilt University, 1959. Cited in W.H. Fitts. Tennessee Self-Concept Scale Manual. Nashville, Tenn.: Counselor Recordings and Tests, 1965.

Gorham, W.A. and D.B. Orr. Research on Behavior Impairment Due to Stress. Washington, D.C.: American Institute for Research, U.S. Air Force Personnel and Training Center, Air Research and Development Command, San Antonio, Tex.

Grinker, R. and J. Spiegel. Men Under Stress. Philadelphia: Blakiston, 1945.

Hocking, F. "Extreme Environmental Stress and Its Significance for Psychopathology." American Journal of Psychotherapy, 24 (1970): 4-26.

Hocking, F. "Psychiatric Aspects of Extreme Environmental Stress." Diseases of the Nervous System, 31 (1970): 542-545.

Hodges, William F. and James P. Felling. "Types of Stressful Situations and Their Relation to Trait Anxiety and Sex." Journal of Consulting and Clinical Psychology, 34 (1970): 333-337.

Janis, Irving L. Air War and Emotional Stress. New York: McGraw-Hill, 1951.

Janis, Irving L. Psychological Stress. New York: Wiley, 1958.

Janis, Irving L. and H. Leventhal. "Human Reactions to Stress." In E. Borgatta and W. Lambert, eds. Handbook of Personality Theory and Research. Chicago: Rand McNally, 1967.

Kiev, A. and M.B. Griffen. "Some Observations on Airmen who Break Down During Basic Training." American Journal of Psychiatry, 122 (1965): 184-188.

Klausner, S.Z. "The Intermingling of Pain and Pleasure: The Stress-Seeking Personality in its Social Context." In S.Z. Klausner, ed. Why Man Takes Chances. New York: Doubleday, 1968.

Korchin, Sheldon J. "Some Psychological Determinants of Stress Behavior." In Samuel Z. Klausner, ed. The Quest for Self-Control. New York: Free Press, 1965.

Kuhn, D.G. "The Effect of Stressful Work Environments on Task Related Anxiety and Group Cohesion." Ph.D. dissertation, Pennsylvania State University, 1971. Ann Arbor, Mich.: University Microfilms, 1971, No. 72-13, 885.

Lazarus, R. Psychological Stress and the Coping Process. New York: McGraw-Hill, 1966.

Lester, James T. "Stress: On Mount Everest." Psychology Today, 3 (1969): 28-29.

Lucas, R.A. "Social Behavior Under Conditions of Extreme Stress: A Study of Miners Entrapped by a Coal Mine Disaster." Ph.D. dissertation, Columbia University, 1967. Ann Arbor, Mich.: University Microfilms, 1967, No. 71-6217.

Luchterhand, E.C. "Sociological Approaches to Massive Stress in Natural and Man-Made Disasters." International Psychiatry Clinics, 8 (1971): 29-53.

Menninger, C. "Regulatory Devices of the Ego Under Major Stress." International Journal of Psychoanalysis, 35 (1954): 412-420.

Miller, J.G. "A Theoretical Review of Individual and Group Psychological Reactions to Stress." In G.H. Grosser, H. Wechsler, and M. Greenblatt, eds. The Threat of Impending Disaster. Cambridge, Mass.: M.I.T. Press, 1964.

Miller, Stuart. "Ego Autonomy in Sensory Deprivation, Isolation and Stress." International Journal of Psychoanalysis, 43, part I (1962).

Radloff, Roland and Robert Helmreich. Groups Under Stress. New York: Appleton-Century-Crofts, 1968.

Radloff, Roland and Robert Helmreich. "Stress Under the Sea." Psychology Today, 3 (1969): 28-29.

Schmideberg, M. "Some Observations on Individual Reactions to Air Raids." International Journal of Psychoanalysis, 23 (1942): 146-176.

Selye, Hans. "The Individual Reaction to Stress." In M. Farber, Piero Mustacchi, and Roger H.L. Wilson, eds. Man Under Stress. Paper read at California and the Challenge of Growth, Conference 7, at the University of California, 1963.

Selye, Hans. The Stress of Life. New York: McGraw-Hill, 1956.

Spaulding, R.C. and C.V. Ford. "The Pueblo Incident: Psychological Reactions to the Stresses of Imprisonment and Repatriation." American Journal of Psychiatry, 129 (1972): 17-26.

Suinn, R.M. and J. Geiger. "Stress and the Stability of Self- and Other-Attitudes." Journal of General Psychology, 73 (1965): 177-180.

Tanner, Ogden. Stress. New York: Time-Life Books, 1976.

Trumbull, R. and M. Appley. "Some Pervading Issues." In M. Appley and R. Trumbull, eds. Psychological Stress. New York: Appleton-Century-Crofts, 1967.

Vinokur, A. and M. Selzer. "Life Events, Stress and Mental Distress." Proceedings of the 81st Annual Convention of the American Psychological Association, Montreal, Canada, 8 (1973): 329-330.

Wilkerson, R. "Some Factors Influencing the Effect of Environmental Stressors Upon Performance." Psychological Bulletin, 72 (1969): 260-272.

Withey S. "Reaction to Uncertain Threat." Mimeographed. Ann Arbor: University of Michigan, 1956.

c. Risk-taking

Alvarez, A. "I Like to Risk My Life." Saturday Evening Post (September 9, 1967): 10 and 12.

Bair, J.T. and T.J. Gallagher. "Volunteering for Extra-hazardous Duty." Journal of Applied Psychology, 44 (1960): 329-331.

Bernard, Jesse. "The Eudaemonists." In Samuel Z. Klausner, ed. Why Man Takes Chances. New York: Doubleday, 1968.

Daley, Robert. "The Risk Takers." Playboy (June 1969): 141-142, 150, 176, 178, 180.

Houston, Charles. "The Last Blue Mountain." In Samuel Z. Klausner, ed. Why Man Takes Chances. New York: Doubleday, 1968.

Huberman, John. "A Psychological Study of Participants in High-Risk Sports." Ph.D. dissertation, University of British Columbia, 1968.

Klausner, Samuel Z., ed. Why Man Takes Chances. New York: Doubleday, 1968.

Leviton, Daniel. "Some Reactions Toward Death Among Danger-Defying Sportsmen." In Gerald S. Kenyon, ed. Contemporary Psychology of Sport. Chicago: Athletic Institute, 1970.

Marshall, Samuel L.A. "The Better Part of Man's Nature." In Samuel Z. Klausner, ed. Why Man Takes Chances. New York: Doubleday, 1968.

Nisbett, R.E. "Birth Order and Participation in Dangerous Sports." Journal of Personality and Social Psychology, 8 (1968): 351-353.

"The Thrill Seekers." Newsweek (August 18, 1975): 44-51.

Zuckerman, M., E. Kolin, L. Price, and I. Zoob. "Development of a Sensation Seeking Scale." Journal of Consulting Psychology, 28 (1964): 477-482.

d. Personality, adjustment, aspiration, and motivation

Allport, Gordon W. Pattern and Growth in Personality. Rev. ed. New York: Holt, Rinehart and Winston, 1961.

Allport, Gordon W. Personality: A Psychological Interpretation. New York: Holt, 1937.

Allport, Gordon W. Personality and Social Encounter. Boston: Beacon, 1960.

Allport, G.W., P.E. Vernon, and G. Lindzey. Study of Values: A Scale for Measuring the Dominant Interests in Personality. Boston: Houghton Mifflin, 1951.

Altus, W.P. "Birth Order and its Sequelae." Science, 151 (1966): 44-48.

Anastasiow, Nichclas J. "Personality Traits of Teachers Nominated as Strong and Weak." Psychological Reports, 20 (1967): 1343-1346.

Anggal, Andras. Foundations for a Science of Personality. New York: Commonwealth Fund, 1941.

Argyris, Chris. Personality and Organization. New York: Harper, 1957.

Bandura, A. and R.H. Walters. Social Learning and Personality Development. New York: Holt, Rinehart and Winston, 1963.

Becker, Howard S. "Personal Change in Adult Life." Sociometry, 27 (1964).

Bills, R.E., E.L. Vance, and O.S. McLean. "O. S. and Index of Adjustment and Values." Journal of Consulting Psychology, 15 (1951): 257-261.

Brunner, Burton C. "Personality and Motivating Factors Influencing Adult Participation in Vigorous Physical Activity." Research Quarterly, 40 (1969): 464-469.

Bryde, John F. "The Sioux Indian Student: A Study of Scholastic Failure and Personality Conflict." Condensation of the Ph.D. thesis, 1966.

Cameron, Norman. Personality Development and Psychopathology. Boston: Houghton Mifflin, 1963.

Cantril, H. "Sentio, Ergo Sum: 'Motivation' Reconsidered." Journal of Psychology, 65 (1967): 91-107.

Cattell, Raymond B. Personality: A Systematic Theoretical and Factual Study. New York: McGraw-Hill, 1950.

Cattell, Raymond B. The Scientific Analysis of Personality. Chicago: Aldine, 1965.

Cattell, Raymond B. and Herbert W. Eber. Manual For Forms A and B Sixteen Personality Factor Questionnaire. Champaign, Ill.: Institute for Personality and Ability Testing, 1962.

Cattell, Raymond B., Herbert W. Eber, and Maurice M. Tatsuoka. Handbook for the Sixteen Personality Factor Questionnaire. Champaign, Ill.: Institute for Personality and Ability Testing, 1970.

Cattell, Raymond B., H.W. Eber, and M.M. Tatsuoka. Tabular Supplement No. 1 to the 16 PF Handbook. Champaign, Ill.: Institute for Personality and Ability Testing, 1967-68 ed.

Cober, Linda Jane. "A Personality Factor Study of Participants in High Risk Sports." Master's thesis, Pennsylvania State University, 1972.

Currie, Donald and Justine Harris. "Energy Level and Personality: Some Speculations." Canadian Counsellor, 5 (June 1971): 199-208.

Escalona, S.K. "An Application of the Level of Aspiration Experiment to the Study of Personality." In Contributions to Education. New York: Teachers College, Columbia University, 1948.

Ferguson, L.W. Personality Measurement. New York: McGraw-Hill, 1952.

Frank, J.D. "Individual Differences in Certain Aspects of the Level of Aspiration." American Journal of Psychology, 47 (1935): 119-128.

French, John, Willard Rodgers, and Sidney Cobb. "Adjustment as Person Environment Fit." In Coelho, Hamburg, and Adams, eds. Coping and Adaptation. New York: Basic Books, 1974.

Havighurst, Robert J. and Hilda Taba. Adolescent Character and Personality. New York: Wiley, 1949.

Hunt, D.E. "Personality Patterns of Adolescent Boys." NIMH Progress Report, 1964.

Jackson, D.N. Personality Research Form Manual. Goshen, N.Y.: Research Psychologists Press, 1967.

Jesness, C.F. "The Jesness Inventory: Development and Validation." Research Report No. 29. California Youth Authority, August 1962.

Jesness, C.F. The Jesness Inventory: Manual. Palo Alto, Calif.: Consulting Psychologists Press, 1966.

Jesness, C.F. The Jesness Personality Inventory. Palo Alto, Calif.: Consulting Psychologists Press, 1966.

Jesness, C.F. Manual, Behavior Checklist. Palo Alto, Calif.: Consulting Psychologists Press, 1971.

Jesness, C.F., T. Sculltion, S. France, and R. Wedge. "The Preston Typology Study." California Youth Authority, 1969.

Kelly, J.G. "Adaptive Behavior in Varied High School Environments." Unpublished manuscript. University of Michigan, Institute of Social Research, 1968.

Kroll, Walter. "16 PF Profiles of Collegiate Wrestlers." Research Quarterly, 38 (March 1967): 49.

Kroll, Walter and Kay H. Petersen. "Personality Profiles of Collegiate Football Teams." Research Quarterly, 36 (December 1965): 433.

Law, P. "Personality Problems in Antarctica." Medical Journal of Australia, 47 (1960): 273-282.

Lester, J.T. "Personality and Everest." British Alpine Journal (1969): 101-107.

Lewin, Kurt. "The Psychology of Success and Failure." Occupations, 14 (1936): 926-930.

Lewin, Kurt, et al. "Level of Aspiration." In J. Hunt, ed. Personality and Behavior Disorders. New York, 1944.

Lindzey, Gardner. Assessment of Human Motives. New York: Rinehart, 1958.

Lynd, Helen. "Emerging Ways of Studying Personality." In On Shame and the Search for Identity. New York: Science Edition, 1961.

Mackintosh, H. Stewart. "Character Training and the Contribution Made by Outward Bound." In David James, ed. Outward Bound. London: Routledge and Kegan Paul, 1957.

Maslow, A.H. "A Theory of Metamotivation: The Biological Rooting of the Value Life." Journal of Humanistic Psychology, 7 (Fall 1967): 93-127.

McClelland, David C. "The Measurement of Human Motivation: An Experimental Approach." (1952) In Anne Anastasi, ed. Testing Problems in Perspective. Washington, D.C.: American Council on Education, 1966.

McClelland, David C. "Methods of Measuring Human Motivation." In J.W. Atkinson, ed. Motives in Fantasy, Action and Society. Princeton, N.J.: Van Nostrand, 1958.

McClelland, David C. "Toward A Theory of Motive Acquisition." American Psychologist, 20 (1965).

McClelland, D.C. and D.G. Winter. Motivating Economic Achievement. New York: Free Press, 1969.

Mischel, W. Personality and Assessment. New York: Wiley, 1968.

Murphy, Louis B. "Coping, Vulnerability, and Resilience in Childhood." In Coelho, Hamburg, and Adams, eds. Coping and Adaptation. New York: Basic Books, 1974.

Murray, Henry A. Explorations in Personality. New York: Oxford University Press, 1938.

Musgrave, P.W. Society and Education in England Since 1800. London: Methuen, 1968.

Norman, W.T. "Personality Measurement, Faking and Detection: An Assessment Method for Use in Personnel Selection." Journal of Applied Psychology, 47 (1963): 225-241.

Ogilvie, B.C. "Psychological Consistencies with the Personality of High-Level Competitors." Journal of American Medical Association, 205 (1968): 156-162.

Peterson, S.L., J.C. Weber, and W.W. Trousdale. "Personality Traits of Women in Team Sports Versus Women in Individual Sports." Research Quarterly, 38 (1967): 686-690.

Price, T. "Some Aspects of Character Building." Outward Bound (October 1967): 23-27.

Rogers, Carl R. "Divergent Trends in Methods of Improving Adjustment." Harvard Education Review, 10 (1948): 483.

Rohrer, J.H. Some Impressions of Psychic Adjustment to Polar Isolation. Washington, D.C.: U.S. Navy Bureau of Medicine and Surgery, 1958.

Rychlak, J.F. A Philosophy of Science for Personality Theory. Boston: Houghton Mifflin, 1968.

Sanford, Nevitt. "The Interview in Personality Appraisal." (1953) In Anne Anastasi, ed. Testing Problems in Perspective. Washington, D.C.: American Council on Education, 1966.

Sarason, Irwin G. Personality: An Objective Approach. New York: Wiley, 1966.

Sarnoff, Irving. Personality Dynamics and Development. New York: Wiley, 1962.

Schonfeld, William A. "Inadequate Masculine Physique as a Factor in Personality Development of Adolescent Boys." Psychosomatic Medicine, 12 (September 1950): 49-54.

Sears, Pauline S. "Levels of Aspiration in Academically Successful and Unsuccessful Children." Journal of Abnormal and Social Psychology, 35 (1940): 498-536.

Smith, Mary Anne Wakefield. "An Investigation of the Effects of an Outward Bound Experience on Selected Personality Factors and Behaviors of High School Juniors." Ph.D. dissertation, University of Oregon, 1971.

Sontag, L.W., C.J. Baker, and V.L. Nelson. "Mental Growth and Personality Development: A Longitudinal Study." Monographs of the Society for Research in Child Development, 23 (1958): 1-143.

Start, K.B. "Rater-Ratee Personality in the Assessment of Teaching Ability." British Journal of Educational Psychology, 38 (1968): 14-20.

Start, K.B. "The Relation of Teaching Ability to Measures of Personality." British Journal of Educational Psychology, 36 (1966): 158-165.

Strutt, Betty E. "The Influence of Outward Bound Courses on the Personality of Girls." Research in Physical Education, 1 (1966).

Thomas, W.I. Unadjusted Girl in Social Behavior and Personality. 1951.

Tillman, Kenneth. "Relationship between Physical Fitness and Selected Personality Traits." Research Quarterly, 36 (December 1965): 483.

Wagner, R.V. "Success, Failure, Level of Aspiration, and Self-Esteem." Final Report, Office of Education (DHEW). Abstract. Washington, D.C.: Bureau of Research, June 1968.

Werner, A. C. and E. Gottheil. "Personality Development and Participation in College Athletics." Research Quarterly, 37 (March 1966): 126-131.

Wright, M.W., J. Chylinski, G.C. Sisler, and B. Quarrington. "Personality Factors in the Selection of Civilians for Isolated Northern Stations: A Follow-up Study." Canadian Psychologist, 8a (1967): 23-31.

Wright, M.W., G.C. Sisler, and J. Chylinski. "Personality Factors in the Selection of Civilians for Isolated Northern Stations." Journal of Applied Psychology, 47 (1963): 24-29.

e. Achievement

Ambler, R.K., J.R. Berkshire, and W.F. O'Conner. The Identification of Potential Astronauts. Report No. 33. Pensacola, Fla.: Naval School of Aviation, 1961.

Arnett, Chappelle. "Inter-relationships Between Selected Physical Variables and Academic Achievement of College Women." Research Quarterly, 39 (May 1968): 227-230.

Barry, Alan J. "A Factorial Study of Motivation, Physical Fitness, and Academic Achievement in College Freshmen." Unpublished materials. University of Illinois, 1961.

Brown, R. and E. Henderson. "The Use of a Developmental Index to Predict Pupil Achievement." Unpublished paper. 1963.

Klausmeier, H.J. "Physical, Behavioral, and Other Characteristics of High and Lower Achieving Children in Favored Environments." Journal of Educational Research, 51 (1958): 573-582.

Klausmeier, H.J. and J. Check. "Relationships Among Physical, Mental Achievement and Personality Measures in Children of Low, Average, and High Intelligence at 113 Months of Age." American Journal of Mental Deficiency, 63 (1959): 1059-1068.

Klausmeier, H.J., J. Feldhusen, and J. Check. *An Analysis of Learning Efficiency in Arithmetic of Mentally Retarded Children in Comparison with Children of Average and High Intelligence*. University of Wisconsin School of Education, August 1959.

Klausmeier, H.J., I.J. Lehmann, and A. Beeman. "Relationship Among Physical, Mental, and Achievement Measures in Children of Low, Average, and High Intelligence." *American Journal of Mental Deficiency*, 63 (1958): 647-656.

McClelland, D.C., et al. *The Achievement Motive*. New York: Appleton-Century-Crofts, 1953.

Mitchell, J.V., Jr. "Goal-Setting Behavior as a Function of Self-Acceptance, Over-and-Under-Achievement, and Related Personality Variables." *Journal of Educational Psychology*, 50 (1959): 93-104.

Moses, D. and D. Peterson. "Academic Achievement Helps Programs." Unpublished manuscript. Mimeographed. Brigham Young University Academic Standards Office, 1970.

f. Leadership

Baker, Edward. "Change of Leadership Behavior Attitudes Effected by Participation in Basic Courses at NOLS." Master's thesis, Pennsylvania State University, 1975.

Benne, Kenneth. "Leaders Are Made, Not Born." *Childhood Education*, 24 (January 1948).

Blakeley, Robert J. *Strategies of Leadership*. New York: Harper, 1959.

Brigham Young University. *Outdoor Survival, Youth Leadership 480*. Special Courses and Conferences Brochure. Provo, Utah: Brigham Young University, 1975.

Browne, C.G. and Thomas S. Cohn. *The Study of Leadership*. Danville, Ill.: Interstate Printers and Publishers, 1958.

Carter, L.F., et al. "The Behavior of Leaders and Other Group Members." *Journal of Abnormal and Social Psychology*, 46 (1951): 589-595.

Carter, L., W. Haythorn, and M. Howell. "A Further Investigation of the Criteria of Leadership." *Journal of Abnormal and Social Psychology*, 45 (1950): 350-358.

Dotson, J.L. "Executives: The Way to the Top." *Newsweek*, 75 (April 27, 1970): 80.

Fiedler, F.E., G.E. O'Brien, and D.R. Ilgen. "The Effect of Leadership Style Upon the Performance and Adjustment of Volunteer Teams Operating in Successful Foreign Environment." *Human Relations*, 22 (1969): 503-514.

Gibb, Cecil A. "Leadership." In Gardner Lindzey, ed. *Handbook of Social Psychology*, vol. II. Cambridge, Mass.: Addison-Wesley, 1954.

Gouldner, Alvin W., ed. *Studies in Leadership*. New York: Harper, 1950.

Greenbank, Anthony. "In a School of Leadership." *Times Educational Supplement* (London), March 12, 1965, p. 746.

Grusky, Oscar. "The Effects of Formal Structure on Managerial Recruitment: A Study of Baseball Organization." *Sociometry*, 3 (1963): 147-152.

Henry, Wesley Raymond. "Reasons for Participating in the 1972 NOLS Wilderness Expeditions." Master's thesis, University of Michigan, 1973.

"How One Company Trains in the Great Outdoors." *Business Week*, 2186 (July 24, 1971): 40-44.

Jenkins, W.D. "A Review of Leadership Studies with Particular Reference to Military Problems." *Psychological Bulletin*, 44 (1947): 54-79.

Lippitt, Gordon L. *Leadership in Action*. Washington, D.C.: National Training Laboratories; National Education Association, 1961.

Marrow, Alfred J. *Making Management Human*. New York: McGraw-Hill, 1957.

Office of Strategic Services, Assessment Staff. *Assessment of Men*. New York: Rinehart, 1948.

"Pitting Managers Against Nature." *Business Week*, 2011 (March 16, 1968): 106-114.

Roff, M.E. *A Study of Combat Leadership in the Air Force by Use of a Rating Scale*. U.S.A.F. School of Aviation Medicine, 1950.

Schleh, Edward C. *Successful Executive Action*. Englewood Cliffs, N.J.: Prentice-Hall, 1955.

Sells, S.B. *Research Report on Leadership and Organizational Factors in Effective A.C. and W. Sites*. Fort Worth, Tex.: Texas Christian University, Institute of Behavioral Research, 1965.

Selvin, Hanan C. *The Effects of Leadership*. New York: Free Press, 1960.

Stogdill, Ralph M. "Personal Factors Associated with Leadership: A Survey of the Literature." *Journal of Psychology*, 1948.

Tead, Ordway. *The Art of Leadership*. New York: McGraw-Hill, 1935.

"Wilderness Baptism for Businessman." *Colorado Business*, 1 (July 1974): 12-15.

g. Therapy, counselling, and social work intervention

American School Counselor Association. "Guidelines for Implementation of the American School Counselor Association Statement of Policy for Secondary School Counselors." 1964.

Argyris, Chris. "Conditions for Competence Acquisition and Therapy." Journal of Applied Behavioral Science, 4 (1968): 147-177.

Argyris, Chris. "The Nature of Competence, Acquisition Activities and their Relationship to Therapy." In W.G. Bennis, E. Schein, F. Steele, and D. Berlew, eds. Interpersonal Dynamics. Homewood, Ill.: Dorsey, 1968.

Ashcraft, Rock. "A Five-State Survey of Counselor Duties, Problems, and Responsibilities." School Counselor, 13 (May 1966): 230-232.

Atherton. "Using Points for Intervention." Social Casework, April 1971.

Austin, Lucille. "Trends in Differential Treatment." Social Casework, June 1948.

Bandler, B. "Concepts of Ego Supportive Psychotherapy." In H. Parad and R. Miller, eds. Ego Oriented Casework. New York: Family Service, 1963.

Bandura, A. Principles of Behavior Modification. New York: Holt, Rinehart and Winston, 1969.

Barcus, C.G. and R.G. Bergeson. "Survival Training and Mental Health: A Review." Therapeutic Recreation Journal, 6 (1972): 3-7.

Barrett-Lennard, G.T. "Dimensions of Therapist Response as Causal Factors in Therapeutic Change." Psychological Monographs, 76 (No. 562, 1961).

Bass, Bernard M. "The Anarchist Movement and the T-Group: Some Possible Lessons for Organizational Development." Journal of Applied Behavioral Science, 3 (1967).

Bennis, Warren G., Edgar H. Schein, Fred I. Steele, and David Berlew. Interpersonal Dynamics. Rev. ed. Homewood, Ill.: Dorsey, 1968.

Bergin, Allen E. "The Effects of Psychotherapy: Negative Results Revisited." Journal of Counseling Psychology, 10 (1963): 244-250.

Bergin, Allen E. "Some Implications of Psychotherapy Research for Therapeutic Practice." Journal of Abnormal Psychology, 71 (1966): 235-246.

Bernstein, Arthur. "Wilderness as a Therapeutic Behavior Setting." Therapeutic Recreation Journal, 6 (1972): 160-185.

Bernstein, Saul, ed. Explorations in Group Work. Boston University School of Social Work, 1965.

Betz, Barbara J. "Experiences in Research in Psychotherapy with Schizophrenic Patients." *Research in Psychotherapy*, 2 (1962): 41-60.

Blocher, Donald H. *Developmental Counselling*. New York: Ronald Press, 1966.

Borgatta, E.F. and D. Fanshel. *Behavioral Characteristics of Children Known to Psychiatric Outpatient Clinics*. New York: Child Welfare League of America, 1965.

Brill, N.Q. and G.W. Beebe. *A Follow-up Study of War Neuroses*. Washington, D.C.: V.A. Medical Monograph, 1955.

Bugental, J.F.T. *The Search for Authenticity: An Existential-Analytic Approach to Psychotherapy*. New York: Holt, Rinehart and Winston, 1965.

Bushard, B.L. "The Mental Hygiene Consultation Service in the Army." In *Symposium on Preventative and Social Psychiatry*. Washington, D.C.: Walter Reed Army Institute of Research, 1958.

Campbell, J.P. and M.D. Dunnette. "Effectiveness of T-group Experience in Managerial Training and Development." *Psychological Bulletin*, 70 (1968): 73-104.

Cartwright, Rosalind Dymond, and J.L. Vogel. "A Comparison of Changes in Psycho-Neurotic Patients During Matched Period of Therapy and No-therapy." *Journal of Consulting Psychology*, 24 (1960): 121-127.

Collingwood, T.R. *Survival Camping: A Therapeutic Mode for Rehabilitating Problem Youth*. Technical report. Little Rock: Arkansas Rehabilitation and Research Training Center, 1972.

Colorado Outward Bound School. "Human Relations Seminars." Mimeographed reports. Colorado Outward Bound School, 1969 and 1970.

Congdon, C.S. "Self Theory and Chlorpromazine Treatment." Ph.D. dissertation, Vanderbilt University, 1958.

Cooper, G.L. "The Influence of the Trainer on Participant Change in T-Groups." *Human Relations*, 22 (1969): 515-530.

Corwin, R.G. and R.C. Clarke. "Organizational Contexts and Constraints — Reflections on the Counseling Movement." In D.A. Hansen, ed. *Explorations in Sociology and Counseling*. Boston: Houghton Mifflin, 1967.

Craft, M., G. Stephenson, and C. Granger. "A Controlled Trial of Authoritarian and Self-Governing Regimes with Adolescent Psychopaths." *American Journal of Orthopsychiatry*, 34 (1964): 543-554.

Diagnostic and Statistical Manual of Mental Disorders II. Washington, D.C.: American Psychiatric Association, 1968.

Dickey, Brenda A. "Attitudes Toward Sex Roles and Feelings of Adequacy in Homosexual Males." Journal of Consulting Psychology, 25 (1961): 116-122.

Dickey, Brenda A. "Role Conflict and Feelings of Adequacy in Homosexual Males." Master's thesis, University of Colorado, 1958.

Drabman, R., et al. "Teaching Self Control to Disruptive Children." Journal of Abnormal Psychology, 82 (1973): 10-16.

Eysenck, H.J. "The Effects of Psychotherapy: An Evaluation." Journal of Consulting Psychology, 45 (1954): 319-324.

Fenton, N. An Introduction to Group Counseling in State Correctional Service. New York: American Correctional Association, 1958.

Fiedler, F.E., E.B. Hutchins, and J.S. Dodge. "Quasi-Therapeutic Relations in Small College and Military Groups." Psychological Monographs, 73 (No. 473, 1959).

Freedman, Alfred M. and Harold J. Kaplan. A Comprehensive Textbook of Psychiatry. Baltimore: Williams and Wilkins, 1967.

French, T. "Goal, Medium and Integrative Field." Psychosomatic Medicine, 3 (1941): 226-252.

French, T. Integration of Behavior: Basic Postulates, vol. 1. Chicago: University of Chicago Press, 1952.

Ganfill, E., E. Thomas, and R. Carter. "Procedure for Sociobehavioral Practice in an Open Setting." In E. Thomas, ed. Behavior Modification Procedures. Chicago: Aldine, 1974.

Gannon, F.B. "Counselors in Action." School Counselor, 13 (October 1965): 39-41.

Germain, Carel B. "An Ecological Perspective in Casework Practice." Social Casework, June 1973.

Gladwin, Thomas. "Social Competence and Clinical Practice." Psychiatry, 30 (February 1967).

Glasser, W. Reality Therapy: A New Approach to Psychiatry. New York: Harper and Row, 1965.

Glover, E. "Psychoanalysis and Criminology: A Political Survey." International Journal of Psychoanalysis, 37 (1956): 312-317.

Gottlieb, Werner and Joe Stanley. "Mutual Goals and Goal-Setting in Casework." Social Casework, October 1967.

Grant, J.D. and M.Q. Grant. "A Group Dynamics Approach to the Treatment of Nonconformists in the Navy." Annals, 322 (1959): 126-135.

Grinker, Roy R. "The Psychosomatic Aspects of Anxiety." In Charles D. Spielberger, ed. Anxiety and Behavior. New York: Academic Press, 1966.

Gross, F. and L.M. Deridder. "Significant Movement in Comparatively Short-term Counseling." Journal of Counseling Psychology, 13 (1966): 98-99.

Guttman, E.S. "Effects of Short-term Psychiatric Treatment." California Youth Authority Research Report, No. 36 (1962).

Hare, R.D. Psychopathy: Theory and Research. New York: Wiley, 1970.

Hollenbeck, G.P. "Conditions and Outcomes in the Student-Parent Relationship." Journal of Consulting Psychology, 29 (1965): 237-241.

Hollis, Florence. "Personality Diagnosis in Casework." In Howard Parad, ed. Ego Psychology and Dynamic Casework. New York: Family Service, 1958.

"I'm Okay." Film. Extension Media Center, University of California, Berkeley.

Johnson, Warren R. "Some Psychological Aspects of Physical Rehabilitation: Toward an Organismic Theory." Journal of the Association for Physical and Mental Rehabilitation, 8 (1962): 165.

Julian, J.W., D.W. Bishop, and F.E. Fiedler. "Quasi-Therapeutic Effects of Intergroup Competition." Journal of Personality and Social Psychology, 3 (1966): 321-327.

Kagan, M. "A Study of Selected Dimensions of the Field Instructor-Student Relationship." Ph.D. dissertation, University of Minnesota, 1968. Ann Arbor, Mich.: University Microfilms, 1968, No. 68-12.

Kagan, M.J., I. Hungate, C. Hau, and B. Lewis. "An Exploratory Study of Selected Dimensions of the Field Instructor-Student Relationship During Second Year, Social Work Field Practice. Part 2: The Field Instructor-Student Relationship in Social Work." Research report. Graduate School of Social Work, Univeristy of Texas, 1964.

Kanfer, F.H. and A.R. Marston. "Conditioning of Self-Reinforcing Responses: An Analogue to Self-Confidence Training." Psychological Reports, 13 (1963): 63-70.

Kelly, E.L. and D.W. Fiske. The Prediction of Performance in Clinical Psychology. Ann Arbor: University of Michigan Press, 1951.

Kimball, R. and C.J. Gelso. "Self-Actualization in a Marathon Growth Group: Do the Strong Get Stronger?" Journal of Counseling Psychology, 21 (1974): 38-41.

Klavetter, Robert E. and Robert E. Moger. "Peak Experiences: Investigation of Their Relationship to Psychedelic Therapy and Self-Actualization." Journal of Humanistic Psychology, 7 (Fall 1967): 171-177.

Koepke, Sharon M. "The Effects of Outward Bound Participation Upon Anxiety and Self-Concept." Mimeographed report. Colorado Outward Bound School, 1973.

Lachman, S.J. *Psychosomatic Disorders: A Behavioristic Interpretation*. New York: Wiley, 1972.

Lee, Porter R. "Social Work: Cause and Function." In Fern Lowry, ed. *Readings in Social Casework 1920-1938*. New York: Russell Sage Foundation, 1952.

Levis, D. "Behavioral Therapy: The Fourth Therapeutic Revolution?" In D. Levis, ed. *Learning Approaches to Therapeutic Behavior Change*. Chicago: Aldine, 1970.

Lieberman, M.A., I.D. Yalom, and M.B. Miles. *Encounter Groups: First Facts*. New York: Basic Books, 1973.

Lovett, Richard A. *Outward Bound: A Means of Implementing Guidance Objectives*. Reston, Va.: Outward Bound, Inc., 1971.

Maluccio, Anthony. "Action as a Tool in Casework Practice." *Social Casework*, 55 (January 1974).

Maslow, A.H. "Critique of Self-Actualization. Some Dangers of Being-Cognition." *Journal of Individual Psychology*, 15 (May 1959): 24-32.

McArthur, Charles C. "Clinical Versus Actuarial Prediction." (1955) In Anne Anastasi, ed. *Testing Problems in Perspective*. Washington, D.C.: American Council on Education, 1966.

McBroom, Elizabeth. "Socialization and Social Casework." In Robert W. Robert and Robert H. Nee, eds. *Theories of Social Casework*. Chicago: University of Chicago Press, 1970.

McCall, John N. "Trends in the Measurement of Vocational Interest." *Review of Educational Research*, 35 (February 1965): 53-62.

Meltzoff, Julian and Melvin Kornreich. *Research In Psychotherapy*. New York: Atherton, 1970.

Menninger, William C. "Mental Hygiene Aspect of the Boy Scout Movement." *Mental Hygiene*, 13 (July 1929): 501-502.

Meyer, Carol H. *Social Work Practice*. New York: Free Press, 1970.

Mowrer, O.H. "Learning Theory and Behaviour Therapy." In B. Wolman, ed. *Handbook of Clinical Psychology*. New York: McGraw-Hill, 1965.

Nardini, J.E., R.S. Herrmann, and J.E. Rasmussen. "Navy Psychiatric Assessment Program in the Antarctic." *American Journal of Psychiatry*, 119 (1962): 97-105.

National Training Laboratories. Reading Book. Twentieth Annual. Washington, D.C.: Summer Laboratories in Human Relations Training, 1966.

Noble, Frank C. "Why Don't Counselors Counsel?" School Counselor, 16 (November 1968): 94-98.

Offer, D. and M. Sabshin. "The Psychiatrist and the Normal Adolescent." Archives of General Psychiatry, 9 (November 1963): 427.

Offer, D., M. Sabshin, and D. Marcus. "Clinical Evaluation of Normal Adolescents." American Journal of Psychiatry, 121 (March 1965): 864.

Perls, Frederick S. Gestalt Therapy Verbatim. Moab, Utah: Real People Press, 1969.

Pizzat, Frank. Behavior Modification in Residential Treatment for Children. New York: Behavioral, 1973.

Pollak, Otto. Social Science and Psychotherapy for Children. New York: Russell Sage Foundation, 1952.

Rahe, R.H. Life Crisis and Health Change. Report No. 67-4. San Diego, Calif.: U.S. Navy Medical Neuropsychiatric Research Unit, 1967.

Rahe, Richard. "The Pathway Between Subjects -- Recent Life Changes and Their Near-Future Illness Reports." In B. Dohrenwerd and B. Dohrenwerd, eds. Stressful Life Events. New York: Wiley, 1974.

Rapaport, David. "The Theory of Ego Autonomy: A Generalization." Bulletin of the Menninger Clinic, 22 (January 1958).

Rapoport, L. "The State of Crisis: Some Theoretical Considerations." Social Service Review, 36 (1962): 211-217.

Rapoport, Rhona. "Normal Crisis, Family Study, and Mental Health." Family Process, 2 (March 1963).

Reid, W.C. and Laura Epstein. Task-Centered Casework. New York: Columbia University Press, 1972.

"Report and Discussion on Hafod Meurig Courses in Relation to Intermediate Treatment." Mimeographed. The Rainier Foundation, 1972.

Robinson, Virginia P. A Changing Psychology in Social Casework. Chapel Hill: University of North Carolina Press, 1934.

Rogers, Carl. Client-Centered Therapy. Boston: Houghton Mifflin, 1951.

Rogers, Carl. "The Necessary and Sufficient Conditions of Therapeutic Personality Change." Journal of Consulting Psychology, 21 (1957): 95-103.

Rogers, Carl. On Encounter Groups. New York: Harper and Row, 1970.

Rogers, Carl R. "The Process of the Basic Encounter Group." In J.F.T. Bugental, ed. Challenges of Humanistic Psychology. New York: McGraw-Hill, 1967, pp. 261-276.

Rogers, Carl R. "Toward Becoming a Fully Functioning Person." In Perceiving, Behaving, Becoming: National Education Association Yearbook. Washington, D.C.: National Education Association, 1962.

Rogers, Carl and R.F. Dymond. Psychotherapy and Person Change. Chicago: University of Chicago Press, 1954.

Rosenthal, D. and P. Frank. "Changes in Some Values Following Psychotherapy." Journal of Consulting Psychology, 19 (1956): 431-436.

Rotter, J.B. Social Learning and Clinical Psychology. Englewood Cliffs, N.J.: Prentice-Hall, 1954.

Scheerer, E. "An Analysis of the Relationship Between Acceptance and Respect for the Self and Acceptance of and Respect for Others in Ten Counseling Cases." Journal of Consulting Psychology, 13 (1949: 169-175.

Schwartz, Morris. Social Approaches to Mental Patient Care. New York: Columbia University Press, 1964.

Segal, J. and A. Segal. "Une Expérience de Réadaptation par la Pratique d'un Sport D'Equipe en Mileau Psychiatrique." Annales Médico-Psychologiques, 2 (1967): 261-274.

Shertzer, B. and S.C. Stone. "Administrative Deterrents to Guidance Program Development." Theory Into Practice, 2 (1963): 24-32.

Shertzer, B. and S.C. Stone. Fundamentals of Counseling. Boston: Houghton Mifflin, 1968.

Siegfried, K. "Delinquez im Jugendalter und der Rorschach-Versuch." Schweizerische Zeitschrift fur Psychologie und ihre Anwendungen, 29 (1970): 334-343.

Sivadon, P. "Space as Experienced: Therapeutic Implications." In H. Proshansky, ed. Environmental Psychology. New York: Holt, Rinehart and Winston, 1970.

Smalley, Ruth E. Theory for Social Work Practice. New York: Columbia University Press, 1967.

Spielberger, Charles D., Richard L. Gorsuch, and Robert E. Lushene. STAI Manual. Palo Alto, Calif.: Consulting Psychologists Press, 1970.

Staub, E.A. "A Child in Distress: The Effects of Focussing Responsibility on Children on Their Attempts to Help." Developmental Psychology, 2 (1970): 152-154.

Strupp, H.H. "Toward an Analysis of the Psychotherapist's Contribution to the Treatment Process." Psychiatry, 22 (1959): 349-362.

Strupp, H.H. and L. Luborsky, eds. "Research in Psychotherapy." American Psychological Association, 2 (1962).

Studt, Elliot. "Social Work Theory and Implications for the Practice of Methods." Social Work Education Reporter, June 1968.

Sullivan, Harry Stack. The Interpersonal Theory of Psychiatry. William Alanson White Psychiatric Foundation, 1953.

Towle, Charlotte. "Social Work: Cause and Function 1961." Social Casework, October 1961.

Truax, C.B. "Effective Ingredients in Psychotherapy: An Approach to Unraveling the Patient-Therapist Interaction." Journal of Counseling Psychology, 1963.

Truax, C.B. "A Tentative Scale for the Measurement of Unconditional Positive Regard." Wisconsin Psychiatric Institute Discussion Paper, No. 23 (1962).

Truax, C.B. and R. Carkhuff. Towards Effective Counselling and Psychotherapy: Training and Practice. Chicago: Aldine, 1967.

Ullmann, L.P. and L. Krasner. A Psychological Approach to Abnormal Behavior. Englewood Cliffs, N.J.: Prentice-Hall, 1969.

University of Massachusetts Counseling Center Staff. "The Effects of Three Types of Sensitivity Groups on Changes in Measure of Self-Actualization." Journal of Counseling Psychology, 19 (1972): 253-254.

Watts, Alan W. Psychotherapy East and West. New York: Random House, 1961.

White, Robert. "Ego and Reality in Psychoanalytic Theory." Psychological Issues Monograph II. New York: International University Press, 1963.

Wrenn, Gilbert C. The Counselor in a Changing World. American Personnel and Guidance Association, 1962.

Yalom, Irvin D. The Theory and Practice of Group Psychotherapy. New York: Basic Books, 1970.

Zerface, James P. and Walter H. Cox. "School Counselors Leave Home." Personnel and Guidance Journal, 49 (January 1971): 371-375.

h. Small groups research

Aronson, E. and J. Mills. "The Effect of Severity of Initiation on Liking for a Group." *Journal of Abnormal and Social Psychology*, 59 (1959): 177-181.

Asch, S.E. "Effects of Group Pressure upon the Modification and Distortion of Judgment." In H. Guetzkow, ed. *Groups, Leadership and Men*. Pittsburgh: Carnegie, 1951.

Bormann, E.G. "The Paradox and Promise of Small Group Research." *Speech Monographs*, 38 (1970): 211-217.

Brehm, Jack W. and Millard Mann. "Effect of Importance of Freedom and Attraction to Group Members on Influence Produced by Group Pressure." *Journal of Personality and Social Psychology*, 31 (1975): 816-824.

Cartwright, Dorwin and Alvin Zander, eds. *Group Dynamics*. 3rd ed. New York: Harper and Row, 1968.

Collins, B.E. and H. Guetzkow. *A Social Psychology of Group Processes for Decision Making*. New York: Wiley, 1964.

Cratty, Bryant J. and J.N. Sage. "The Effects of Primary and Secondary Group Interaction upon Improvement in a Complex Movement Task." *Research Quarterly*, 35 (1964): 265-274.

Deutsch, S. "A Man-Systems Integration Study of the Behavior of Crews and Habitability in Small Spaces." In J.W. Miller, J.G. VanDerwalker, and R.A. Waller, eds. *Scientists in the Sea*. USDI Report. Washington, D.C.: U.S. Government Printing Office, 1971.

Eilbert, L.R. and R. Glaser. "Differences between Well and Poorly Adjusted Groups in an Isolated Environment." *Journal of Applied Psychology*, 43 (1959): 271-274.

Emerson, R.M. "Mount Everest: A Case Study of Communication Feedback and Sustained Group Goal-Striving." *Sociometry*, 29 (1966): 213-227.

Faunce, D. and J.A. Beegle. "Cleavages in a Relatively Homogeneous Group of Rural Youth: An Experiment in the Use of Sociometry in Attaining and Measuring Integration." *Sociometry*, 11 (1948): 207-216.

Festinger, L. *A Theory of Cognitive Dissonance*. Evanston, Ill.: Row-Peterson, 1957.

Festinger, L. "A Theory of Social Comparison Processes." *Human Relations*, 7 (1954): 117-140.

Festinger, L. and E. Aronson. "The Arousal and Reduction of Dissonance in Social Contexts." In D. Cartwright and A. Zander, eds. *Group Dynamics: Research and Theory*. Evanston, Ill.: Row-Peterson, 1960.

Festinger, L., S. Schacter, and K. Back. Social Pressures in Informal Groups: A Study of Human Factors in Housing. New York: Harper, 1950.

Fiedler, F.E. "The Effect of Inter-group Competition on Group Member Adjustment." Personnel Psychology, 20 (1967): 33-44.

Gronlund, N.E. Sociometry in the Classroom. New York: Harper, 1959.

Gunderson, E.K.E. "Emotional Symptoms in Extremely Isolated Groups." Archives of General Psychiatry, 9 (1963): 362-368.

Gunderson, E.K.E. "Group Compatibility in Restricted Environments." In S.B. Sells, Chairman. APA Symposium on Factors Affecting Team Performance in Isolated Environments. Fort Worth: Texas Christian University, Institute of Behavioral Research, July 1968.

Gunderson, E.K.E. "Individual Behavior in Confined or Isolated Groups." In J.E. Rasmussen, ed. Man in Isolation and Confinement. Chicago: Aldine, 1973.

Gunderson, E.K.E. "Mental Health Problems in Antarctica." Archives of Environmental Health, 17 (1968): 558-564.

Gunderson, E.K.E. "Personal and Social Characteristics of Antarctic Volunteers." Journal of Social Psychology, 64 (1964): 325-332.

Gunderson, E.K.E. "Psychological Studies in Antarctica: A Review." In O.G. Edholm and E.K.E. Gunderson, eds. Polar Human Biology. England: William Heinemann, 1973.

Gunderson, E.K.E. Small Group Structure and Performance in Extreme Environments. Report No. 66-3. San Diego, Calif.: U.S. Navy Medical Neuropsychiatric Research Unit, 1966.

Gunderson, E.K.E. and P.D. Nelson. "Measurement of Group Effectiveness in Natural Isolated Groups." Journal of Social Psychology, 66 (1965): 241-249.

Gunderson, E.K.E., P.D. Nelson, and J.M. Orvick. Personal History Correlates of Military Performance at a Large Antarctic Station. Report No. 64-22. San Diego, Calif.: U.S. Navy Medical Neuropsychiatric Research Unit, 1963.

Hammerschlag, C.A. and B.M. Astrachan. "The Kennedy Airport Snow-In: An Inquiry Into Intergroup Phenomena." Psychiatry, 34 (1971): 301-308.

Hammes, J.A. and R.T. Osborne. "Survival Research in Group Isolation Studies." Journal of Applied Psychology, 49 (1965): 418-21.

Hare, A.P. Handbook of Small Group Research. New York: Free Press, 1962.

Hare, A.P. "Interpersonal Relations in the Small Group." In R.L. Faris, ed. *Handbook of Modern Sociology*. Chicago: Rand McNally, 1964.

Harmon, S.J. "Crisis: Group Response to Emergency." *Journal of Communication*, 21 (1971): 266-272.

Haven, G.A. "Morale, Job Satisfaction and Performance: Notes on the Literature Relating Attitude to Group Cohesion and Effectiveness." In S.B. Sells, ed. *Tri-Service Conference on Research Relevant to Behavior Problems of Small Military Groups Under Isolation and Stress*. U.S.A.F. Report. Fort Worth: Texas Christian University, 1961.

Hemphill, J.K. *Group Dimensions: A Manual For Their Measurement*. Research Monograph No. 87. Columbus: Ohio State University, Bureau of Business Research, 1956.

Hites, R., P. Pepinsky, C. Christner, and R. Dugan. *Studies in Aircrew Composition. XIV. Variables in Crew Members' Experience and Performance During Advanced Survival Training as Predictors of Combat Performance*. Technical Report No. 14. Columbus: Ohio State University Research Foundation, 1954.

Hutchins, E.G. and F.E. Fiedler. "Task Oriented and Quasi-Therapeutic Role Function of the Leader in Small Military Groups." *Sociometry*, 23 (1960): 393-406.

Jacobson, S.R. "Individual and Group Responses to Confinement in a Skyjacked Plane." *American Journal of Orthopsychiatry*, 43 (1973): 459-469.

Janis, I.L. "Group Identification under Conditions of External Danger." *British Journal of Medical Psychology*, 36 (1963): 227-238.

Klausner, Samuel Z. "Assertion and Obliteration of the Self Among Sport Parachutists: An Analysis of the Impact of Group Psychological Climate." In Gerald S. Kenyon, ed. *Contemporary Psychology of Sport*. Chicago: Athletic Institute, 1970.

Klausner, Samuel Z. "Sport Parachuting." In Ralph Slovenko and James A. Knight, eds. *Motivations in Play, Games and Sports*. Springfield, Ill.: Charles C. Thomas, 1967.

Lester, J.T. "Group Trends in Assessment Results." Unpublished manuscript. Office of Naval Research, 1968.

Lott, A.J. and B.E. Lott. "Group Cohesiveness as Interpersonal Attraction: A Review of Relationships with Antecedent and Consequent Variables." *Psychological Bulletin*, 64 (1964): 259-309.

McGuire, F.L. and S. Tolchin. "Group Adjustment at the South Pole." In S.B. Sells, ed. *Tri-Service Conference on Research Relevant to Behavior Problems of Small Military Groups Under Isolation and Stress*. U.S.A.F. Report. Fort Worth: Texas Christian University, 1961.

Milgram, S. "Liberating Effects of Group Pressure." Journal of Personality and Social Psychology, 1 (1965): 127-134.

Miller. "Information Input Overload and Psychopathology." American Journal of Psychiatry, 116 (February 1960).

Mills, Theodore M. and Stan Rosenberg, eds. Readings on the Sociology of Small Groups. Englewood Cliffs, N.J.: Prentice-Hall, 1970.

Mullin, C.S. "Some Psychological Aspects of Isolated Antarctic Living." American Journal of Psychiatry, 117 (1960): 323-325.

Mullin, C.S. and H. Connery. "Psychological Study at an Antarctic IGY Station." United States Armed Forces Medical Journal, 10 (1959): 290-296.

Nelson, P.D. Compatibility Among Work Associates in Isolated Groups. Report No. 64-13. San Diego, Calif.: U.S. Navy Medical Neuropsychiatric Research Unit, 1964.

Nelson, P.D. Human Adaptation to Antarctic Station I. Fe. Report No. 12. San Diego, Calif.: U.S. Navy Medical Neuropsychiatric Research Unit, 1962.

Nelson, P.D. "The Indirect Observation of Groups Under Confinement and Isolation." In J.E. Rasmussen, ed. Man in Isolation and Confinement. Chicago: Aldine, 1973.

Nelson, P.D. "Psychological Aspects of Antarctic Living." Military Medicine, 130 (1965): 485-489.

Nelson, P.D. and N.H. Berry. "Cohesion in Marine Recruit Platoons." Journal of Psychology, 68 (1968): 63-71.

Nelson, P.D. and E.K.E. Gunderson. Personal History Correlates of Performance Among Military Personnel in Small Antarctic Stations. Report No. 20. San Diego, Calif.: U.S. Navy Medical Neuropsychiatric Research Unit, 1963.

Owens, A.G. The Assessment of Individual Performance in Small Antarctic Groups. Part I. OIC's Rating Scaling Scales. Melbourne, Australia: Australian Military Forces Psychological Research Unit, 1966.

Owens, A.G. The Assessment of Individual Performance in Small Antarctic Groups. Part II. Ratings on the Leary Interpersonal Checklist. Melbourne, Australia: Australian Military Forces Psychological Research Unit, 1967.

Owens, A.G. The Assessment of Individual Performance in Small Antarctic Groups. Part III. Factor Analysis of Leary Interpersonal Checklist Items. Melbourne, Australia: Australian Military Forces Psychological Research Unit, 1967.

Palmai, G. "Psychological Observations in an Isolated Group in Antarctica." British Journal of Psychiatry, 109 (1963): 364-370.

Pope, F.E. and T.A. Rogers. "Some Psychiatric Aspects of an Arctic Survival Experiment." Journal of Nervous and Mental Disease, 146 (1968): 433-445.

Radloff, R. "Costs and Rewards in Exotic Environments." In S. Sells, Chairman. APA Symposium on Factors Affecting Team Performance in Isolated Environments. Fort Worth: Texas Christian University, Institute of Behavioral Research, July 1968.

Rohrer, J.H. "Interpersonal Relationships in Isolated Small Groups." In B.E. Flaherty, ed. Psychophysiological Aspects of Space Flight. New York: Columbia University Press, 1961.

Sells, S.B. Requirements for a Viable Micro-Social System. Report prepared for the Committee on Long Duration Space Missions, National Academy of Sciences. Fort Worth: Texas Christian University, Institute of Behavioral Research, 1970.

Sells, S.B. and J.R. Rawls. Effects of Isolation on Man's Performance. Report No. 8. Fort Worth: Texas Christian University, Institute of Behavioral Research, 1968.

Seymour, G.E. and E.K.E. Gunderson. "Attitudes as Predictors of Adjustment in Extremely Isolated Groups." Journal of Clinical Psychology, 27 (1971): 333-338.

Shepherd, Clovis R. Small Groups. San Francisco: Chandler, 1964.

Sherif, Muzafer and Carolyn Sherif. Reference Groups. New York: Harper and Row, 1964.

Sherif, M., et al. Intergroup Conflict and Cooperation: The Robbers Cave Experiment. Norman, Okla.: University Book Exchange, 1961.

Smith, S. "Studies of Small Groups in Confinement." In J.P. Zubek, ed. Sensory Deprivation: Fifteen Years of Research. New York: Appleton-Century-Crofts, 1969.

Smith, W.M. "Observations Over the Lifetime of a Small Isolated Group: Structure, Danger, Boredom, and Vision." Psychological Reports, 19 (1966): 475-514.

Taylor, A.J.W. "Ability, Stability and Social Adjustment Among Scott Base Personnel, Antarctica." Occupational Psychology, 43 (1969): 81-93.

Thibaut, J.W. and H.H. Kelley. The Social Psychology of Groups. New York: Wiley, 1959.

Torrance, E.P. "The Behavior of Small Groups Under the Stress Conditions of 'Survival.'" American Sociological Review, 19 (1954): 751-755.

Torrance, E.P. "Sociometric Techniques for Diagnosing Group Ills." In J.L. Moreno, ed. Sociometry and the Science of Man. Boston: Beacon, 1956.

Torrance, E.P. "What Happens to the Sociometric Structure of Small Groups in Emergencies and Extreme Conditions." Group Psychotherapy, 10 (1957): 212-220.

Torrance, E.P., G.R. LaForge, and R. Mason. Group Adaptation in Emergencies and Extreme Conditions. Technical Memorandum OSSP-TM-56-4. Randolph A.F.B., Tex.: Air Force Personnel and Training Research Center, Office for Social Science Programs, 1956.

Trego, R.E. and S.B. Sells. Toward Selection for Long-Duration Isolated Missions: A Literature Review. Report No. 70-9. Fort Worth: Texas Christian University, Institute of Behavioral Research, 1970.

Weybrew, B.B. Psychological and Psychophysiological Effects of Long Periods of Submergence. I. Analysis of Data Collected During a 265-hour, Completely-submerged Habitability Cruise Made by the Nautilus. Report No. 281. New London, Conn.: U.S. Navy Submarine Medical Research Laboratory, 1957.

Weybrew, B.B. "Psychological Problems of Prolonged Periods of Marine Submergence." In N. Burns, R.F. Chambers and E. Hendler, eds. Unusual Environments and Human Behavior. Glencoe, Ill.: Free Press, 1963.

Weybrew, B.B., H.B. Molish, and R.P. Youniss. Prediction of Adjustment to the Antarctic. Report No. 350. New London, Conn.: U.S. Naval Medical Research Laboratory, 1961.

i. Relationship of physical and psychological factors

Asmussen, Erling and Neilsen K. Heiball. "Physical Performance and Growth in Children: Influence of Sex, Age, and Intelligence." Journal of Applied Physiology, 8 (1956).

Brown, R. and E. Henderson, et al. "Measuring Physical, Intellectual, and Social-Emotional Development." Paper presented at AERA, February 1962.

Cumbee, Frances Z. "A Factor Analysis of Motor Co-ordination." Research Quarterly, 25 (December 1954): 412-428.

Cumbee, Frances Z., M. Meyer, and G. Peterson. "Factorial Analysis of Motor Co-ordination Variables for Third and Fourth Grade Girls." Research Quarterly, 28 (May 1957): 100-108.

Fisher, Seymour. "Experiencing Your Body: You Are What You Feel." *Saturday Review* (July 8, 1972): 27-32.

Heaps, R.A. "Actual and Perceived Fitness: Their Relationship to Psychological Functioning." *Proceedings of the Annual Convention of the American Psychological Association*, 7 - Part 1 (1972): 193-194.

Heath, Roy S. "Railwalking Performance as Related to Mental Age and Etiological Type Among the Mentally Retarded." *American Journal of Psychology* (April 1942): 240-247.

Helmreich, R. "Patterns of Aquanaut Behavior." In J.W. Miller, J.G. VanDerwalker, and R.A. Waller, eds. *Scientists in the Sea*. USDI Report. Washington, D.C.: U.S. Government Printing Office, 1971.

Helmreich, R. "The Tektite II Human Behavior Program." In J.W. Miller, J.G. VanDerwalker, and R.A. Waller, eds. *Scientists in the Sea*. USDI Report. Washington, D.C.: U.S. Government Printing Office, 1971.

Helmreich, R., J. Wilhelm, R. Bakeman, and R. Radloff. "Prediction of In-Habitat Behavior." In J.W. Miller, J.G. VanDerwalker, and R.A. Waller, eds. *Scientists in the Sea*. USDI Report. Washington, D.C.: U.S. Government Printing Office, 1971.

Ismail, A.H. and C.C. Cowell. "Factor Analysis of Motor Aptitude of Pre-Adolescent Boys." *Research Quarterly*, 32 (December 1961): 507-513.

Ismail, A.H. and J.J. Gruber. *Interrelationships Between Motor Aptitude and Intellectual Performance*. Lafayette, Ind.: Purdue University, 1965.

Ismail, A.H., N. Kephart, and C.C. Cowell. "Utilization of Motor Aptitude Test Batteries in Predicting Academic Achievement." *Technical Report No. 1*. Purdue University Research Foundation, P.U. 879-64-838, August 1963.

Krogman, W.M. "The Physical Growth of Children: An Appraisal of Studies." *Monograph of the Society for Research in Child Development*, 20 (1956): 1-91.

Seashore, H. "Some Relationships of Fine and Gross Motor Abilities." *Research Quarterly*, 13 (October 1942): 259-274.

Sloan, W. "Motor Proficiency and Intelligence." *American Journal of Mental Deficiency*, 55 (1951): 394-406.

j. Disaster and survival experience

Beach, H.D. and R.A. Lucas, eds. *Individual Behavior in a Coal Mine Disaster*. Disaster Study No. 13. Washington, D.C.: National Academy of Sciences/National Research Council, 1960.

East, Ben. *Survival*. New York: Dutton, 1967.

Leopold, R.L. and H. Dillon. "Psycho-anatomy of a Disaster: A Long-term Study of Post-traumatic Neuroses in Survivors of a Marine Explosion." *American Journal of Psychiatry*, 119 (1963): 913-921.

Llano, G.A. *Airmen Against the Sea: An Analysis of Sea Survival Experiences*. Report G-104. Maxwell Air Force Base, Ala.: Arctic, Desert, Tropic Information Center, 1955.

Marks, E.S. and C.E. Fritz. "Human Reactions in Disaster Situations." Unpublished report. University of Chicago: National Opinion Research Center, 1954.

Powell, J.W., J.E. Finesger, and H.H. Greenhill. *An Introduction to the Natural History of Disaster*, vol. II. Disaster Research Project Final Report. College Park: University of Maryland Psychiatric Institute, 1954.

Shader, R.I. and A.J. Schwartz. "Management of Reactions to Disaster." *Social Work*, 11 (1966): 99-104.

Torrance, E.P. "Surviving Emergencies and Extreme Conditions: A Summary of Six Years of Research." Unpublished manuscript. Air Force Personnel and Training Center, 1957.

Tyhurst, J.S. "Individual Reactions to Community Disaster." *American Journal of Psychiatry*, 107 (1951): 764-769.

Wallace, A.F.C. *Tornado in Worchester: An Exploratory Study of Individual and Community Behavior in an Extreme Situation*. Disaster Study No. 3. Washington, D.C.: National Academy of Sciences/National Research Council, 1956.

k. Anxiety

Birnbaum, Morton P. "Anxiety and Moral Judgments in Early Adolescence." *Journal of Genetic Psychology*, 120 (1972): 13-26.

Dubos, Rene. "Uneasy Overloads Must Learn to Collaborate with Nature." *Catalyst* (Spring 1970): 5-8.

Freud, Sigmund. *The Problem of Anxiety*. New York: Norton, 1936.

Levitt, Eugene E. *The Psychology of Anxiety*. Indianapolis, Ind.: Bobbs-Merrill, 1967.

Roubicek, J. "Anxiety and Higher Nervous Functions." In M.H. Lader, ed. *Studies of Anxiety*. Ashford, Kent: Headley, 1969.

Sarason, Irwin G. "Empirical Findings and Theoretical Problems in the Use of Anxiety Scales." In Irwin G. Sarason, ed. *Contemporary Research in Personality*. Princeton, N.J.: Van Nostrand, 1962.

Spielberger, Charles D. "Anxiety as an Emotional State." In C.D. Spielberger, ed. *Anxiety: Current Trends in Theory and Research*, vol. 1. New York: Academic, 1972.

Spielberger, Charles D. "Theory and Research in Anxiety." In Charles D. Spielberger, ed. *Anxiety and Behavior*. New York: Academic, 1966.

1. Moral development

Baier, Kurt. In C.M. Beck, B.S. Crittenden, and E.V. Sullivan, eds. *Moral Education: Interdisciplinary Approaches*. Paramus, N.J.: Newman, 1971.

Bandura, A. "Social Learning of Moral Judgments." *Journal of Personality and Social Psychology*, 2 (1969): 275-279.

Bandura, A. and F.G. MacDonald. "The Influence of Social Reinforcement and the Behavior Models in Shaping Children's Moral Judgment." *Journal of Abnormal Social Psychology*, 67 (1963): 274-281.

Bull, N.J. *Moral Judgments from Childhood to Adolescence*. London: Routledge and Kegan Paul, 1969.

Chandler, Michael J., Stephen Greenspan, and Carl Barenboim. "Judgments of Intentionality in Response to Videotaped and Verbally Presented Moral Dilemmas: The Medium is the Message." *Child Development*, 44 (1973): 315-320.

Cowan, P.A., J. Langer, J. Heavenrich, and M. Nathanson. "Social Learning and Piaget's Cognitive Theory of Moral Development." *Journal of Personality and Social Psychology*, 11 (1969): 261-274.

Crowley, P.M. "Effect Upon Objectivity of Moral Judgment in Grade School Children." *Journal of Personality and Social Psychology*, 8 (1968): 228-232.

Dispoto, Raymond. "Socio-Moral Reasoning and Environmental Activity, Emotionality, and Knowledge." Ed.D. dissertation, Rutgers, The State University of New Jersey, 1975.

Dorr, Darwin, and Steven Fey. "Relative Power of Symbolic Adult and Peer Models in the Modification of Children's Moral Choice Behavior." *Journal of Personality and Social Psychology*, 29 (1974): 335-341.

Duro, Lajos. "Some Connections Between the Moral Features of Personality and Interpersonal Relations." *Magyar Pszichologiai Szemle*, 29 (1972): 211-217.

Hall, Robert T. and John U. Davis. Moral Education in Theory and Practice. New York: Prometheus, 1975.

Hann, Norma, et al. "Moral Reasoning of Young Adults: Political-Social Behavior, Family Background and Personality Correlates." Journal of Personality and Social Psychology, 10 (1968): 183-201.

Hann, Norma, Janice Stroud, and Constance Holstein. "Moral and Ego Stages in Relationship to Ego Processes: A Study of 'Hippies'." Journal of Personality, 41 (1973): 596-612.

Hoffman, Martin L. "The Development of Altruistic Motivation." In David J. DePalma and Jeanne M. Foley, eds. Moral Development: Current Theory and Research. New York: Halsted, 1975.

Hogan, Robert. "Moral Conduct and Moral Character: A Psychological Perspective." Psychological Bulletin, 79 (1973): 217-232.

Keasey, Charles Blake. "Experimentally Induced Changes in Moral Opinions and Reasoning." Journal of Personality and Social Psychology, 26 (1973): 30-38.

Keasey, Charles Blake. "Implicators of Cognitive Development for Moral Reasoning." In David DePalma and Jeanne Foley, eds. Moral Development: Current Theory and Research. New York: Halsted, 1975.

Kohlberg, L. "Development of Moral Character and Moral Ideology." In Martin L. Hoffman and L.W. Hoffman, eds. Review of Child Development Research. New York: Russell Sage Foundation, 1964.

Kohlberg, L. "Moral Education in the Schools." School Review (1966): 1-50.

Kohlberg, L. "Stages and Aging in Moral Development--Some Speculations." Gerontologist (Winter 1973): 497-502.

Kohlberg, L. "Stages of Moral Development as a Basis for Moral Education." In C.M. Beck, B.S. Crittenden, and E.V. Sullivan, eds. Moral Education: Interdisciplinary Approaches. Paramus, N.J.: Newman, 1971.

Kohlberg, L. and R.B. Kramer. "Continuities and Discontinuities in Childhood and Adult Moral Development." Human Development, 12 (1969): 93-120.

Kohlberg, L. and E. Turiel. "Moral Development and Moral Education." In G. Lesser, ed. Psychology and Education Practice. Chicago: Scott, Foresman, 1971.

LeFurgy, W. and G. Woloshin. "Immediate and Long-Term Effects of Experimentally Induced Social Influence in the Modification of Adolescents' Moral Judgments." Journal of Personality and Social Psychology, 12 (1969): 104-110.

Loevinger, Jane. "Issues in the Measurement of Moral Development." Princeton, N.J.: Proceedings of the Educational Testing Service Invitational Conference, 1976.

Maitland, Karen A. and Jacquelin R. Goldman. "Moral Judgment as a Function of Peer Group Interaction." Journal of Personality and Social Psychology, 30 (1974): 699-704.

Meacham, John A. "A Dialectical Approach to Moral Judgment and Esteem." Human Development, 18 (1975): 159-170.

Rest, James R. "Developmental Psychology as a Guide to Value Education: A Review of Kohlbergian Programs." Review of Educational Research, 44 (1974): 241-259.

Rest, James R. "The Hierarchial Nature of Stages of Moral Judgment." Journal of Personality, 41 (1973): 86-109.

Rest, James R. "Recent Research on an Objective Test of Moral Judgment: How the Important Issues of a Moral Dilemma are Defined." In David DePalma and Jeanne Foley, eds. Moral Development: Current Theory and Research. New York: Wiley, 1975.

Rest, James R., E. Turiel, and L. Kohlberg. "Levels of Moral Development as a Determinant of Preference and Comprehension of Moral Judgments Made by Others." Journal of Personality, 37 (1969): 225-252.

Schleifer, Michael and Virginia Douglas. "Effects of Training on the Moral Judgment of Young Children." Journal of Personality and Social Psychology, 28 (1973): 62-68.

Selman, R. "The Relation of Role-Taking to the Development of Moral Judgment in Children." Child Development, 42 (1971): 79-91.

Simon, A. and L.O. Ward. "Variables Influencing Pupil's Responses on the Kohlberg Schema of Moral Development." Journal of Moral Education, 2 (1973): 283-286.

Turiel, Elliot. "Conflict and Transition in Adolescent Moral Development." Child Development, 45 (1974): 14-29.

Turiel, Elliot. "An Experimental Test of Sequentiality of Developmental Stages in the Child's Moral Judgments." Journal of Personality and Social Psychology, 3 (1966): 611-618.

Wright, Derek. The Psychology of Moral Behavior. Middlesex, England: Penguin, 1971.

m. Assessment of individuals

Allen, R.M. Personality Assessment Procedures: Psychometric, Projective and Other Procedures. New York: Harper and Row, 1958.

Bronfenbrenner, Urie, J. Harding, and Mary Gallwey. "The Measurement of Skill in Social Perception." In D.C. McClelland, A.L. Baldwin, et al., eds. *Talent and Society: New Perspectives in the Identification of Talent*. Princeton, N.J.: Van Nostrand, 1958.

Buros, O.K., ed. *The Seventh Mental Measurements Yearbook*. Highland Park, N.J.: Gryphon, 1972.

Cattell, R.B., Herbert W. Eber, and Maurice M. Tatsuoka. *Handbook for the Sixteen Personality Factor Questionnaire*. Champaign, Ill.: Institute for Personality and Ability Testing, 1970.

Cattell, R.B., Herbert W. Eber, and Maurice M. Tatsuoka. *Tabular Supplement Number One to the 16 PF Handbook*. Champaign, Ill.: Institute for Personality and Ability Testing, 1970.

Cronbach, Lee J. *Essentials of Psychological Testing*. New York: Harper, 1960.

Eilbert, L.R., R. Glaser, and R.M. Hanes. *Research on the Feasibility of Selection of Personnel for Duty at Isolated Stations*. AFPRTR 57-4, ASTIA Document No. 134241. Lackland Air Force Base, Tex.: USAF Personnel Training and Research Center, 1957.

Hedberg, R. and R. Baxter. "Item Favorableness Ratings in a Forced-Choice Test: Applicants vs. Nonapplicants." *American Psychologist*, 15 (1960): 472.

Henmon-Nelson Tests of Mental Ability. Rev. ed. Boston: Houghton Mifflin, 1957.

McQuaig, Jack. *How to Pick Men*. New York: Fell, 1963.

Smith, Eugent R. and Ralph W. Tyler. *Appraising and Recording Student Progress*. New York: Harper, 1942.

Thorndike, R.L. *Personnel Selection: Test and Measurement Techniques*. New York: Wiley, 1949.

n. Individual change

Atthowe, John. "Behavior Innovation and Persistence." *American Psychologist* (January 1973): 34-41.

Borstelmann, L.J. "Psychological Readiness For and Change Associated With the Outward Bound Program." Mimeographed. North Carolina Outward Bound School, 1969.

Etzioni, Amitai. "Human Beings Are Not Very Easy to Change After All." *Saturday Review*, June 3, 1972.

Kolb, David A., Sara K. Winter, and David E. Berlew. "Self-Directed Change: Two Studies." *Journal of Applied Behavioral Science*, 4 (1968).

Lewin, Kurt. "Quasi-Stationary Social Equilibria and the Problem of Permanent Change." In Warren G. Bennis, Kenneth D. Benne, and Robert Chin, eds. *The Planning of Change*. 1st ed. New York: Holt, Rinehart and Winston, 1961.

Mann, F.C. "Studying and Creating Change." In W.G. Bennis, K.D. Benne, and R. Chin. *The Planning of Change*. 1st ed. New York: Holt, Rinehart and Winston, 1961.

Mosher, R.L. and N.A. Sprinthall, et al. "Psychological Education: A Means to Promote Personal Development During Adolescence." *Counseling Psychologist*, 2 (1971): 3-83.

Oxley, Genevieve. "A Life-Model Approach to Change." *Social Casework*, 52 (December 1971).

Rhoades, John Stewart. "The Problem of Individual Change in Outward Bound: An Application of Change and Transfer Theory." Ed.D. dissertation, University of Massachusetts, 1972. Ann Arbor, Mich.: University Microfilms, 1972.

Schein, Edgar H. "The Mechanisms of Change." In W.G. Bennis, K.D. Benne, and R. Chin, eds. *The Planning of Change*. New York: Holt, Rinehart and Winston, 1969.

Schein, Edgar H. "The Process and Mechanisms of Change or Influence." In W.G. Bennis, E.H. Schein, F.I. Steele, and D.E. Berlew, eds. *Interpersonal Dynamics*. Rev. ed. Homewood, Ill.: Dorsey, 1968.

Sherif, Carolyn W. and R.E. Nebergall. *Attitude and Attitude Change: The Social Judgment Involvement Approach*. Philadelphia: Saunders, 1965.

Sherif, Carolyn W. and Muzafer Sherif, eds. *Attitude, Ego-Involvement and Change*. New York: Wiley, 1967.

Stevenson, Ian. "Is the Human Personality More Plastic in Infancy and Childhood?" In Irwin G. Sarason, ed. *Contemporary Research in Personality*. Princeton, N.J.: Van Nostrand, 1962.

o. Environment and psychology

Bateson, Gregory. *Steps to an Ecology of Mind*. New York: Ballantine, 1972.

Brainerd, John. *Working with Nature*. New York: Oxford, 1973.

Goldschmidt, Walter. "Ethology, Ecology and Ethnological Realities." In Coelho, et al., eds. *Coping and Adaptation*. New York: Basic Books, 1974.

Kagan, Aubrey and Lennart Levi. "Adaptation of the Psychosocial Environment to Man's Abilities and Needs." In H. Proshansky, et al., eds. *Environmental Psychology*. New York: Holt, Rinehart and Winston, 1970.

Leyhausen, Paul. "Dominance and Territorality." In Aristide H. Esser, ed. *Behavior and Environment: Use of Space by Animals and Man*. New York: Plenum, 1971.

Proshansky, H., et al., eds. *Environmental Psychology: Man and His Physical Setting*. New York: Holt, Rinehart and Winston, 1970.

Scott, Neil R. "Toward a Psychology of the Wilderness Experience." *Natural Resources Journal* (April 1974): 231-237.

Wohlwill, Joachim. "The Emerging Discipline of Environmental Psychology." *American Psychologist*, 25 (1970): 303-312.

Wohlwill, Joachim. "Factors in the Differential Response to the Natural and Man-Made Environment." Paper presented at Meetings of the American Psychologists Association, Montreal, Canada, August 1973.

D. The adolescent and the family

Bronfenbrenner, Urie. *Two Worlds of Childhood: U.S. and U.S.S.R.* New York: Russell Sage Foundation, 1970.

Cole, Louella and Irma Hall. *Psychology of Adolescence*. New York: Holt, Rinehart and Winston, 1970.

Coleman, James S. *Adolescent Subcultures*. Glencoe, Ill.: Free Press, 1961.

Coleman, James S. "How Do the Young Become Adults?" *Phi Delta Kappan*, December 1972.

Erikson, Erik. *Childhood and Society*. New York: Norton, 1950.

Erikson, Erik. *Identity, Youth and Crisis*. New York: Norton, 1968.

Farrell, Dennis. "The Psychology of Parachuting." In Ralph Slovenko and James A. Knight, eds. *Motivations in Play, Games and Sports*. Springfield, Ill.: Charles C. Thomas, 1967.

Friedenberg, Edgar Z. *The Vanishing Adolescent*. New York: Dell, 1959.

Glasser, Paul and Elizabeth Navarre. "Structural Problems of the One-Parent Family." *Journal of Social Issues* (January 1965): 98-109.

Grambs, Jean D. "The Community and the Self-Governing Adolescent Groups." *Journal of Educational Sociology*, 30 (June 1956): 94-105.

Harwood, E. "Social Development in the Queensland Adolescent." Australian Journal of Education, 3 (September 1959): 77-87.

Henderson, Joseph L. Thresholds of Initiation. Middletown, Conn.: Wesleyan University Press.

Hollingshead, August B. "The Organization of Leisure-Time Services for Youth." In Herman D. Stein and Richard A. Cloward. Social Perspectives on Behavior. New York: Free Press, 1958.

Holt, John. How Children Fail. New York: Dell, 1964.

Horrocks, John E. The Psychology of Adolescence. 3rd ed. Boston: Houghton Mifflin, 1972.

Jersild, Arthur. The Psychology of Adolescence. 2nd ed. New York: Macmillan, 1963.

Jersild, Arthur. The Psychology of Adolescence. 3rd ed. New York: Macmillan, 1969.

Murphy, L. The Widening World of Childhood, Paths Toward Mastery. New York: Basic Books, 1962.

Olson, W.C. Child Development. Boston: D.C. Heath, 1959.

Panel on Youth of the President's Science Advisory Committee. Youth: The Transition to Adulthood.

Pell, Claiborne. "Address by the Honorable Claiborne Pell Before the 1964 Joint Conference on Children and Youth." Senate Congressional Record (April 20, 1964): 8469-8470.

Perry, S.E., E. Silver, and D.A. Bloch. The Child and His Family In Disaster: A Study of the 1953 Vicksburg Tornado. Disaster Study No. 5. Washington, D.C.: National Academy of Sciences/National Research Council, 1956.

Speck, Ross V. and Carolyn L. Attneave. Family Networks. New York: Pantheon, 1973.

Stein, Abe. "Adolescent Participation in Community Coordinating Councils." Journal of Educational Sociology, 21 (March 1947): 177-183.

Strauss, Anselm. "Regularized Status-Passage." In W.G. Bennis, E.H. Schein, F.I. Steele, and D.E. Berlew, eds. Interpersonal Dynamics. Homewood, Ill.: Dorsey, 1968.

Strodtbeck, F.L. "Family Interaction, Values, and Achievement." In D.C. McClelland, et al., eds. Talent and Society. Princeton, N.J.: Van Nostrand, 1958.

Van Gennep, Arnold. The Rites of Passage. Chicago: University of Chicago Press, 1960.

q. General treatises and texts, and treatments of special topics

Asch, S.E. "A Prospective of Social Psychology." In S. Koch, ed. *Psychology: A Study of a Science*. Vol. 3: *Formulations of the Person and the Social Context*. New York: McGraw-Hill, 1959.

Ausubel, D.P. *Theory and Problems of Child Development*. New York: Grune and Stratton, 1958.

Beane, Suzuki. "Towards Better Interpersonal Relationships." In W.G. Bennis, F.H. Schein, F.I. Steele, D.E. Berlew, eds. *Interpersonal Dynamics*. Homewood, Ill.: Dorsey, 1968.

Bettleheim, Bruno. *The Informed Heart*. New York: Free Press, 1960.

Bowlby, John. *Attachment*, vol. 1. Baltimore, Md.: Penguin, 1971.

Bowlby, John. *Separation*. New York: Basic Books, 1973.

Bruner, Jerome S. *Beyond the Information Given*. New York: Norton, 1973.

Combs, Arthur W. and Donald Snygg. *Individual Behavior*. Rev. ed. New York: Harper and Row, 1959.

Cottrell, Leonard. "The Analysis of Situational Fields in Social Psychology." *American Sociological Review*, 7 (June 1942).

Cottrell, Leonard. "Roles and Marital Adjustment." *Publications of the American Sociological Society*, 27 (1933): 107-115.

Cytrynbaum, S., D. Snow, and E. Phillips, et al. "Program Analysis and Community Mental Health Services for Children." In D.V.S. Sankar, ed. *Mental Health in Children*. Westbury, N.Y.: PJD Publications, 1975.

Dean, D.G. "Alienation: Its Meaning and Measurement." *American Sociological Review*, 26 (1961): 753-758.

Delahanty, C. "Process of Delegation and Personal Variables." *Catholic Educational Review*, 63 (1965): 229-242.

Egbert, R.L., T. Meeland, U.B. Cline, E.W. Forgy, M.W. Spickler, and C. Brown. *Fighter 1: An Analysis of Combat Fighters and Non-Fighters*. Technical Report No. 44. Human Resources Research Office, 1957.

English, H.B. and E.C. English. *A Comprehensive Dictionary of Psychological and Psychoanalytical Terms*. New York: David McKay, 1958.

Erikson, Erik H. *Insight and Responsibility*. New York: Norton, 1964.

Fenichel, O. "The Counterphobic Attitude." *International Journal of Psychoanalysis*, 20 (1939): 263-274.

Fishbein, Martin, Ed. Reading in Attitude Theory and Measurement. New York: Wiley, 1967.

Flanagan, John C. "Critical Incident Technique." Psychological Bulletin, 51 (July 1954).

Flavell, J. H. The Developmental Psychology of Jean Piaget. Princeton, N.J.: Van Nostrand, 1963.

Freud, Sigmund. Beyond the Pleasure Principle. Trans. by J. Strachey. New York: Bantam, 1959.

Freud, Sigmund. New Introductory Lectures on Psycho-Analysis. New York: Norton, 1933.

Fromm, Erich. "Alienation under Capitalism." In Eric and May Josephson. Man Alone. New York: Dell, 1962.

Fromm, Erich. The Art of Loving. New York: Harper and Row, 1956.

Fromm, Erich. Escape from Freedom. New York: Holt, Rinehart and Winston, 1941.

Fromm, Erich. Man for Himself. Greenwich, Conn.: Fawcett, 1947.

Fromme, Allan. Our Troubled Selves. New York: Farrar, Straus, and Giroux, 1967.

Getzels, Jacob W. and P.W. Jackson. Creativity and Intelligence: Explorations with Gifted Students. New York: Wiley, 1962.

Goffman, Erving. "On The Characteristics of Total Institutions." Proceedings of the Symposium on Preventive and Social Psychiatry. Washington, D.C.: Walter Reed Army Institute of Research, 1957.

Gomolak, Low. "Over the River and Through the Woods to Self-Awareness." College and University Business (August 1972): 43-45.

Hollingshead, A.B. and F.C. Redlich. Social Class and Mental Illness. New York: Wiley, 1958.

James, W. Principles of Psychology, vol. 1. New York: Henry Holt, 1890.

Janis, Irving L. "Vigilance and Decision Making in Personal Crises." In Coelho, Hamburg, and Adams, eds. Coping and Adaptation. New York: Basic Books, 1974.

Kaplan, R. "Some Psychological Benefits of an Outdoor Challenge Program." Environment and Behavior, 6 (1974): 101-115.

Kingsbury, Sherman. "An Open Letter to Chris Argyris." Journal of Applied Behavioral Science, 3 (1967).

Krech, D. and R.S. Crutchfield. Elements of Psychology. New York: Knopf, 1958.

Lindgren, Henry Clay, Donn Byrne, and Lewis Patrinovich. Psychology: An Introduction to a Behavioral Science. 2nd ed. New York: Wiley, 1966.

Lindzey, Gardner, ed. Handbook of Social Psychology. Cambridge, Mass.: Addison-Wesley, 1954.

Maslow, Abraham H. "Cognition of Being in the Peak Experience." Journal of Genetic Psychology, 94 (1959): 43-66.

Maslow, Abraham H. "The Need to Know and the Fear of Knowing." Journal of General Psychology, 68 (January 1963): 111-125.

Maslow, Abraham H. Toward a Psychology of Being. Princeton, N.J.: Van Nostrand, 1962.

May, Rollo. Man's Search for Himself. New York: Norton, 1953.

May, Rollo. Psychology and the Human Dilemma. Princeton, N.J.: Van Nostrand, 1967.

Mead, George Herbert. "Language and the Development of the Self." In Swanson, Newcomb, and Hartley, eds. Readings in Social Psychology. Rev. ed. New York: Henry Holt, 1952.

Mead, George Herbert. Mind, Self, and Society. Chicago: University of Chicago Press, 1934.

Otto, Herbert A. and John Mann. Ways of Growth. New York: Viking, 1968.

Piaget, Jean. Origin of Intelligence of Children. Universal Press, 1952.

Quay, H.C. and L. Peterson. The Behavioral Problem Checklist. Morgantown, W.Va.: Robert F. Kennedy Youth Center, 1967.

Rice, P.B. "The Ego and the Law of Effect." Psychological Review, 53 (1946): 307-320.

Rogers, Carl. On Becoming a Person. Boston: Houghton-Mifflin, 1961.

Rokeach, M. Beliefs, Attitudes and Values. San Francisco: Jossey-Bass, 1968.

Rotter, J.B. "Generalized Expectancies for Internal Versus External Control of Reinforcement." Psychological Monographs, 80 (1966).

Schachter, S. The Psychology of Affiliation. Stanford, Calif.: Stanford University Press, 1959.

Seeman, M. "On the Meaning of Alienation." American Sociological Review, 24 (1959): 783-790.

Sherif, Muzafer. An Outline of Social Psychology. New York: Harper and Row, 1957.

Sherif, Muzafer and Carolyn W. Sherif. Social Psychology. New York: Harper and Row, 1969.

Snygg, Donald and Arthur W. Combs. Individual Behavior. New York: Harper, 1949.

Symonds, P.N. The Ego and the Self. New York: Appleton-Century-Crofts, 1951.

Szasz, T.S. Ideology and Insanity. New York: Doubleday, 1970.

Tagiuri, R. and L. Petrullo, eds. Person Perception and Interpersonal Behavior. Stanford, Calif.: Stanford University Press, 1958.

Thorndike, E.L. The Psychology of Wants, Interests and Attitudes. New York: Appleton-Century, 1935.

Weisskopf, Walter A. "Comment." In Abraham H. Maslow, ed. New Knowledge in Human Values. New York: Harper, 1959.

Yenser, S.D. "Personal and Interpersonal Effects of Outdoor Survival." Master's thesis, Brigham Young University, 1972.

3. Corrections

a. Programs and projects

Adams, S. "The Pico Project." In Norman Johnson, et al., eds. *The Sociology of Punishment and Correction*. New York: Wiley, 1962.

Annual Report of the Division of Youth Service. Boston: Massachusetts Division of Youth Service, 1965.

Annual Report of the Division of Youth Service. Boston: Massachusetts Division of Youth Service, 1967.

Bailey, W.C. "Correctional Treatment: An Analysis of One Hundred Correctional Outcome Studies." *Journal of Criminal Law, Criminology, and Political Science*, 57 (1966): 153-160.

California Department of Corrections. *Second Annual Report*.

California Youth Authority. "A Comparative Study of the Community Parole Center Program." Report No. 63, 1973.

Conrad, J.P. "Program Trends in Correctional Rehabilitation." In *Research in Correctional Rehabilitation*. Washington, D.C.: Joint Commission on Correctional Manpower and Training, 1967.

Glaser, D. *The Effectiveness of a Prison and Parole System*. Indianapolis, Ind.: Bobbs-Merrill, 1964.

Gottfredson, D.M. and K.B. Ballard. *Prison and Parole Decisions, a Strategy for Study*. Vacaville, Calif.: Institute for the Study of Crime and Delinquency, 1965.

Jesness, C.F. "The Fricot Ranch Study." *California Youth Authority Research Report*, No. 47 (1965).

Kelly, Francis J. and Daniel J. Baer, with a Participant Observer's Report by Richard Katz and David Kolb. *An Alternative to Institutionalization of Delinquents--Outward Bound: Outward Bound Schools as an Alternative to Institutionalization for Adolescent Delinquent Boys*. Boston: Fandel, 1968.

Kelly, Francis J. and Daniel J. Baer. "Physical Challenge as a Treatment for Delinquency." *Crime and Delinquency*, 17 (October 1971): 437-445.

Kole, D.M. and H. Busse. "Trail Camping for Delinquents." *Hospital and Community Psychiatry*, 20 (1969): 150-153.

Matheson, M.A. "The Boulder Bay Experiment: A Short Term Training Programme for Young Adult Offenders." Mimeographed. British Columbia Corrections Service, 1970.

Matheson, M.A. and R.A. McAllister. *Base Expectancy Study*. British Columbia Corrections Service, 1967.

Matheson, M.A. and S. A. Thorvaldson. *Parole Performance as a Function of Base Expectancy Scores, Institutional Programs and Parole Supervision*. British Columbia Corrections Service, 1970.

Newman, Oscar. *Defensible Space, Crime Prevention Through Urban Design*. New York: Collier, 1973.

Nold, Joseph J. and Mary Wilpers. "Wilderness Adventure Training as an Alternative to Incarceration." Colorado Outward Bound School, 1974.

Palmer, Ted B. "California Community Treatment Program for Delinquent Adolescents." *Journal of Research in Crime and Delinquency*, 8 (1971): 74-92.

Palmer, Ted B. "California's Community Treatment Project: A Brief Review of Phases 1 and 2 (1961-68) and an Overview of Phase 3 (1967-74)." Sacramento: California Youth Authority, 1970.

Palmer, Ted B. "California's Community Treatment Project in 1969: An Assessment of its Relevance and Utility to the Field of Corrections." U.S. Joint Commission on Correctional Manpower and Training, 1969.

Palmer, Ted B. "Differential Placement of Delinquents in Group Homes, Final Report of the Group Home Project." Sacramento: California Youth Authority and National Institute of Mental Health, 1972.

Pond, Esther M. "The Los Angeles Community Delinquency Control Project." *California Youth Authority Research Report*, No. 6 (1970).

"Project Plan for an Experimental Outward Bound-Type Project with Delinquent Boys." Sponsored by the Colorado Outward Bound School and the Denver Juvenile Court.

"Proposal to Test the Effect of an Outward Bound Experience on the Attitudes of 48 Delinquent Boys."

Report of the Canadian Committee on Corrections, Toward Unity: Criminal Justice and Corrections. Ouimet Report. Ottawa: Queens, 1969.

Sealy, A.P. and C. Banks. "Social Maturity Training Experience and Recidivism Amongst British Borstal Boys." *British Journal of Criminology*, 11 (1971): 245-264.

Spilka, Bernard, Ralph C. Mason, and G. William Freeman. "Delinquency and the Outward Bound Program: An Empirical Evaluation of a Radical Approach to Delinquency Control." Paper presented at the 1968 convention of the Rocky Mountain Psychological Association, Denver, May 10, 1968.

Sturup, G.K. "The Treatment of Chronic Criminals." Bulletin of the Menninger Clinic, 28 (1964): 229-243.

Thorvaldson, S.A. "Corrections Research: Some of the Issues." The Courier (British Columbia Corrections Association). Special Supplement, April 1971.

Thorvaldson, S.A. A Note on the Predictive Validity of the BE 61A Scale in British Columbia. Mimeographed. Criminal Justice Planning and Research Unit, Department of the Attorney-General, Victoria, 1973.

Thorvaldson, S.A., et al. Centre Creek. British Columbia Corrections Service, 1971.

Thorvaldson, S.A. and M.A. Matheson. Parole Performance as a Function of Base, Institution Programme, and Parole Variables, a Pilot Study. Criminal Justice Planning and Research Unit, Department of the Attorney-General, Victoria, 1973.

Warren, M.Q. "Classification of Offenders as an Aid to Efficient Management and Effective Treatment." President's Commission on Law Enforcement and Administration of Justice, Task Force on Corrections, Washington, D.C., 1966.

Warren, M.Q. "Implications of a Typology of Delinquents for Measures of Behavior Change: A Plea for Complexity." State of California. Youth Authority Quarterly, 18 (1965): 3.

Warren, M.Q. "Interpersonal Maturity Level Classification: Juvenile Diagnosis and Treatment of Low, Middle and High Maturity Delinquents." Sacramento: California Youth Authority, 1966.

Weber, J.R. In Alternatives to Mass Congregate Institutions for Delinquent Children and Youth. Boston: Massachusetts Council on Crime and Delinquency, 1967.

Wilkins, L.T. Evaluation on Penal Measures. New York: Random House, 1969.

Willman, Herb. C. Jr. and Ron Y. R. Chun. "Homeward Bound: An Alternative to the Institutionalization of Adjudicated Juvenile Offenders." Federal Probation Quarterly (September 1973): 52-58.

Wolfgang, M.E., R.M. Figlia, and T. Sellin. Delinquency in a Birth Cohort. Chicago, Ill.: University of Chicago Press, 1972.

b. Prevention

Bavley, F. Prevention of Potential Juvenile Delinquency Through Camping. Grant Report 15-P-55013/1-02. Boston: Kiddie Kamp Corp., 1971.

"Deterrent Effects of Criminal Sanctions: Progress Report of the Assembly Committee on Criminal Procedure." Sacramento: Assembly Office of Research, California Legislature.

Glueck, S. and E. Glueck. Predicting Delinquency and Crime. Cambridge, Mass.: Harvard University Press, 1959.

Jessor, Richard, Theodore D. Graves, Robert C. Hanson, and Shirley L. Jessor. Society, Personality, and Deviant Behavior. New York: Holt, Rinehart and Winston, 1968.

Michael, C.M. and F.C. Houck. "Use of the Glueck Prediction Scale in Identification of Potential Delinquents." Corrective Psychiatry and Journal of Social Therapy, 11 (1965): 66-71.

Powers, E. and Helen Witmer. An Experiment in the Prevention of Delinquency. New York: Columbia University Press, 1951.

Toby, J. "An Evaluation of Early Identification and Intensive Treatment Programs for Pre-Delinquents." Social Problems, 13 (1965): 160-175.

Wheeler, S. and L.S. Cottrell. Juvenile Delinquency Its Prevention and Control. New York: Russell Sage Foundation, 1966.

c. Youthful offenders

Cloward, R.A. and L.E. Ohlin. Delinquency and Opportunity. New York: Free Press, 1960.

Cohen, A.L. Delinquent Boys. New York: Free Press, 1955.

Conger, J.J., W.C. Miller, and C.R. Walsmith. Personality, Social Class, and Delinquency. New York: Wiley, 1966.

Crowther, C. "Crime, Penalties and Legislatures." Annals, 381 (1969): 147-158.

Erikson, Erik. New Perspectives for Research on Juvenile Delinquency. Children's Bureau Publication No. 356. Washington, D.C.: U.S. Government Printing Office, 1956.

Featherstone, Joseph. "Youth Referred." The New Republic, August 24 and August 31, 1974.

Feld, B.C. "Variations in Inmate Subcultures in Juvenile Correctional Institutions." Ph.D. dissertation, Harvard University, 1972.

Garabedian, P.G. and D.C. Gibbons. Becoming Delinquent. Chicago: Aldine, 1970.

Giallombardo, R. Juvenile Delinquency: A Book of Readings. New York: Wiley, 1966.

Gibbens, T. "Car Thieves." British Journal of Delinquency, 8 (1958): 16-32.

Glueck, Sheldon and Eleanor Glueck. Family Environment and Delinquency. Boston: Houghton Mifflin, 1962.

Hood, R. and R. Sparks. Key Issues in Criminology. New York: McGraw-Hill, 1970.

Kvaraceus, William C. and Walter B. Miller. Delinquent Behavior, Culture and the Individual. Washington, D.C.: National Education Association, 1959.

Lefeber, J.A. "The Delinquent's Self-Concept." Ph.D. dissertation, University of Southern California, Los Angeles, California, 1965.

Miller, W.B. "Lower Class Culture as a Generating Milieu of Gang Delinquency." In M.E. Wolfgang, L. Savitz, and N. Johnson, eds. The Sociology of Crime and Delinquency. New York: Wiley, 1962.

Ohmart, H. "The Challenge of Crime in a Free Society." Youth Authority Quarterly, 21 (1968): 2-11.

President's Commission on Law Enforcement and the Administration of Justice. Task Force Report: Juvenile Delinquency and Youth Crime. 1967.

Reckless, W., S. Dinitz, and E. Murray. "The 'Good' Boy in a High Delinquency Area." Journal of Criminal Law, Criminology, and Political Science, 48 (1957).

Rosen, M.H. "Dimensions of the Perceived Parent-Relationship as Related to Juvenile Delinquency." Master's thesis, Auburn University, 1961.

Rubenfeld, S. Family of Outcasts: A New Theory of Delinquency. New York: Free Press, 1965.

Savitz, L. "Automobile Theft." Journal of Criminal Law, Criminology, and Political Science, 50 (1959).

Sontag, Louis. "Problems of Dependency and Masculinity as Factors in Delinquency." American Journal of Orthopsychiatry, 23 (1958).

Sykes, G.M. and S.L. Messinger. "The Inmate Social System." In Theoretical Studies in Social Organization of the Prisons. New York: Social Science Research Council, 1960.

Walker, D. "Mother Nature vs. Juvenile Delinquency." Field and Stream, 73 (1969): 60-63.

Witmer, Helen. Delinquency and the Adolescent Crisis. Children's Bureau, Delinquency Facts and Facets No. 11. Washington, D.C.: U.S. Government Printing Office, 1960.

Wood, A.L. "Crime and Aggression in Changing Ceylon." Transactions of the American Philosophical Society, 51-Part 8 (1961): 388-395.

4. Other

a. Legal matters

Black, Henry Campbell. *Black's Law Dictionary*. St. Paul, Minn.: West, 1968.

Code of Federal Regulations. Title 33: "Navigation and Navigable Waters."

Code of Federal Regulations. Title 36: "Parks, Forest and Public Property."

Code of Federal Regulations. Title 43: "Public Lands-Interior."

Corpus Juris Secundum #45: "Negligence." New York: American Law, 1966.

The Environmental Law Reporter. 1972 and 1973 bound volumes.

Surrency, Erwin C. *Research in Pennsylvania Law*. New York: Oceana, 1965.

United States Code Annotated; Title 16: "Conservation." St. Paul, Minn.: West, 1964.

United States Code Annotated; Title 43: "Public Lands."

The U.S. Courts. U.S. Government Publication #95-1470, Committee Print, 1974.

Van der Smissen, Betty. "Legal Aspects of Adventure Activities." Paper presented at Lorado Taft Campus, Northern Illinois University, 1975.

Van der Smissen, Betty. *Legal Liability of Cities and Schools for Injuries in Recreation and Parks*. Cincinnati, Ohio: W.H. Anderson, 1968.

b. American Indian

Brown, Joseph Epes. *The Sacred Pipe*. Norman: University of Oklahoma Press, 1953.

Dusenberry, Verne. *The Montana Cree*. Uppsala, Sweden: Almqvist and Wiksell, 1962.

Fey, Harold E. and D'Arcy McNickle. *Indians and Other Americans*. New York: Harper, 1959.

Havighurst, Robert J. and Bernice L. Neugarten. *American Indian and White Children*. Chicago: University of Chicago Press, 1955.

Kluckhohn, Clyde and Dorothea Leighton. *The Navaho*. Cambridge, Mass.: Harvard University Press, 1946.

Leighton, Alexander and Dorothea C. *The Navaho Door*. Cambridge, Mass.: Harvard University Press, 1945.

Lev, Peter. *American Indian World View and the Outward Bound Concept*. Colorado Outward Bound School, 1968.

McNickle, D'Arcy. *The Indian Tribes of the United States*. London: Oxford University Press, 1962.

The Montana-Wyoming Indian. Billings, Mont.: United States Department of the Interior, Bureau of Indian Affairs, 1965.

Neihardt, John G. *Black Elk Speaks*. Lincoln: University of Nebraska Press, 1961.

Radin, Paul. *The Story of the American Indian*. New York: Liverwright, 1927.

Spicer, Edward H., ed. *Perspectives in American Indian Cultural Change*. Chicago: University of Chicago Press, 1961.

Walker, J. R. "The Sun Dance and Other Ceremonies of the Oglala Division of the Teton Dakota." Anthropological Papers of the American Museum of Natural History, Vol. XVI, part II, New York, 1917.

Whiting, J., R. Kluckhohn, and A. Anthony. "The Function of Male Initiation Ceremonies at Puberty." In E. Maccoby, T. Newcomb and E.L. Hartley, eds. *Readings in Social Psychology*. New York: Henry Holt, 1958.

Wilson, Edmund. *Apologies to the Iroquois*. With a study of "The Mohawks in High Steel" by Joseph Mitchell. New York: Farrar, Straus and Cudahy, 1960.

c. Mountain climbing and other sports

Emerson, R.M. "Sociology." In J.R. Ullman, ed. *Americans on Everest*. Philadelphia: Lippincott, 1964.

Heyerdahl, Thor. *Kon Tiki*. Chicago: Rand McNally, 1950.

Heyerdahl, Thor. *The Ra Expeditions*. New York: Doubleday, 1972.

Huxley, L., ed. *Scott's Last Expedition: The Journals of Captain R.F. Scott*. Boston: Beacon, 1957.

Slusher, Howard S. *Man, Sport and Existence: A Critical Analysis*. Philadelphia: Lea and Febiger, 1967.

Ullman, James Ramsey. *Americans on Everest*. Philadelphia: Lippincott, 1964.

Ullman, James Ramsey. Kingdom of Adventure: Everest. New York: William Sloane, 1947.

Ullman, James Ramsey. Straight Up. New York: Doubleday, 1968.

Umminger, Walter. Supermen, Heroes, and Gods: The Story of Sport Through the Ages. Translated and adapted by James Clark. New York: McGraw-Hill, 1963.

Von Allmen, Hilti: "The North Face of the Matterhorn." In The Mountain World. Chicago: Rand McNally, 1964.

Weiss, Paul. Sport: A Philosophical Inquiry. Carbondale: Southern Illinois University Press, 1969.

d. Ecology

Alexander, Christopher. "The Goodness of Fit and its Sources." In H. Proshansky, ed. Environmental Psychology. New York: Holt, Rinehart and Winston, 1970.

Baker, G.W. and D.W. Chapman, eds. Man and Society in Disaster. New York: Basic Books, 1962.

Bechtel. "A Behavioral Comparison of Urban and Small Town Environments." In Archea and Eastman, eds. E.D.R.A. II. Environmental Design Research Association, 1970.

Grosman, Land S. and J. Hamlet. Our Vanishing Wilderness. New York: Grosset and Dunlap, 1969.

Henderson, Lawrence J. Fitness of the Environment. New York: Macmillan, 1913.

Henderson, Lawrence J. "Water - General Considerations: Thermal Properties." In Edward Kormondy, ed. Readings in Ecology. Englewood Cliffs, N.J.: Prentice-Hall, 1965.

"Lessons From Land and Sea." Morgan Guaranty News. June 1969.

Man and Nature in the City. Washington, D.C.: U.S. Government Printing Office, 1968.

Miller, J.W., J.G. VanDerwalker, and R.A. Waller, eds. Scientists in the Sea. USDI Report. Washington, D.C.: U.S. Government Printing Office, 1971.

Nash, Roderick. Wilderness and the American Mind. New Haven: Yale University Press, 1973.

Nold, J.J. "Conservation and Social Problems." Address to the Colorado Open Space Coordinating Council Conference at Vail, Colorado. Trail and Timberline, Colorado Mountain Club, reprint.

Odum, Eugene P. *Ecology*. New York: Holt, Rinehart and Winston, 1963.

Odum, Eugene P. *Fundamentals of Ecology*. Philadelphia: Saunders, 1971.

Quinn, James A. *Human Ecology*. Englewood Cliffs, N.J.: Prentice-Hall, 1950.

Revelle, Roger and Hans Landsberg, eds. *America's Changing Environment*. Boston: Beacon, 1970.

Roszak, Theodore. *Where the Waste Land Ends*. New York: Doubleday, 1973.

Stea, David. "Space, Territory and Human Movements." *Journal of Landscape*, August 1965.

Wohlwill, Joachim. "The Virtues of a Non-Responsive Environment." Paper submitted to the 1973 Wilderness Conference.

e. Miscellaneous

Alexander, Hartley Burr. *The World's Rim*. Lincoln: University of Nebraska Press, 1953.

Alsop, Kay. "Generation Rap." *Vancouver Province* (October 16, 1975): 25.

Argyris, Chris. "On *Beyond Freedom and Dignity*." *Harvard Educational Review*, 41 (November 1971).

Barrett, William. *Irrational Man*. New York: Doubleday, 1962.

Bass, Ruth I. "An Analysis of the Components of Tests of Semicircular Canal Function and Static and Dynamic Balance." *Research Quarterly*, 10 (May 1939): 33-52.

Bem, D.J. *Beliefs, Attitudes and Human Affairs*. Belmont, Calif.: Brooks/Cole, 1970.

Bennis, Warren G. *Changing Organizations*. New York: McGraw-Hill, 1966.

Bennis, Warren G., Kenneth D. Benne, and Robert Chin. *The Planning of Change*. New York: Holt, Rinehart and Winston, 1961.

Bonington, Christian. "Break for the Open." *Daily Telegraph Magazine*, August 15, 1969.

Bradford, Robert H. "Cold." *Chicago Tribune Sunday Magazine* (December 14, 1969): 85-108.

Brauner, C.J. "The First Probe." Architectural Review, 146 (1969): 451-456.

Buber, Martin. I and Thou. 2nd ed. New York: Charles Scribner's Sons, 1958.

Burlingame, Roger. The American Conscience. New York: Knopf, 1957.

Cantril, Hadley. Patterns of Human Concern. New Brunswick, N.J.: Rutgers University Press, 1965.

Cantril, Hadley. The Why of Man's Experience. New York: Macmillan, 1950.

Carkhuff, R.R. The Development of Human Resources. New York: Holt, Rinehart and Winston, 1971.

Chin, Robert. "The Utility of Systems and Development Models for Practitioners." In W. Bennis, K. Beene and R. Chin, eds. The Planning of Change. New York: Holt, Rinehart and Winston, 1961.

Coleman, James S. Computers, Communications, and the Public Interest. Baltimore, Md.: Johns Hopkins University Press, 1971.

Collins, James. The Existentialists: A Critical Study. Chicago: Henry Regnery, 1952.

Cooper, Kenneth H. The New Aerobics. New York: Bantam, 1970.

Dennison, George. The Lives of Children. New York: Random House, 1970.

Dogan, Mattei and Stein Robban. "Introduction." In M. Dogan and S. Robban, eds. Social Ecology. Boston: MIT Press, 1974.

Dreiser, Theodore, ed. Living Thoughts of Thoreau. Greenwich, Conn.: Fawcett, 1958.

Evans, R.I. Dialogue with Erik Erikson. New York: Harper and Row, 1967.

Exupery, Antoine de Saint. Wind, Sand and Stars. Translated by Lewis Galantiere. New York: Harcourt, Brace and World, 1940.

Eysenck, H.J. Crime and Personality. London: Methuen, 1964.

Frankl, Viktor E. The Doctor and the Soul. New York: Vintage, 1973.

Frankl, Viktor E. Man's Search for Meaning. New York: Simon and Schuster, 1973.

Fraser, James G. Golden Bough. Abbrev. ed. New York: Macmillan.

Gilbert, Martin. The Roots of Appeasement. New York: New American Library, 1966.

Goldstein, K. The Organism. New York: American, 1939.

Guthrie, E.R. and E.P. Horton. *Cats In A Puzzle Box*. New York, 1946.

Hall, Edward. *The Hidden Dimension*. New York: Doubleday, 1969.

Hardin, Garrett. "The Tragedy of the Commons." *Science*, 162 (1968): 1243-1248.

Hemingway, Ernest. *For Whom the Bell Tolls*. New York: Charles Scribner's Sons, 1940.

Hemingway, Ernest. *The Old Man and the Sea*. New York: Charles Scribner's Sons, 1952.

Henderson, Joseph L. "Ancient Myths and Modern Man." In Carl G. Jung, ed. *Man and His Symbols*. New York: Dell, 1968.

Herriot, Robert E. and Nancy H. St. John. *Social Class and the Urban School*. New York: Wiley, 1966.

Hershey, John. *Here to Stay*. New York: Knopf, 1963.

Hiebeler, Toni. "The Ogre Yields." *Sports Illustrated* (March 27, 1961): 35-36, 64-65.

Hoffer, Eric. *The Ordeal of Change*. New York: Harper and Row, 1963.

Hovland, Carl I., Irving L. Janis, and Harold H. Kelley. "Psychological Studies of Opinion Change." In *Communication and Persuasion*. New Haven: Yale University Press, 1966.

Howard, Alan and Robert A. Scott. "Cultural Values and Attitudes Toward Death." *Journal of Existentialism*, 6 (Winter 1965/1966): 161-171.

Janis, I.L. *Victims of Groupthink*. Boston: Houghton Mifflin, 1972.

Jenkinson, H.E.B. "Safety First." *Outward Bound* (August 1966): 5-6.

Johnson, A.R. "Feet First into the Trap." *Compass* (London), 2 (May 1974).

Joint Committee of American Medical Association and the American Association for Health, Physical Education and Recreation. "Exercise and Fitness." *American Medical Association Journal*, 188 (May 4, 1964): 433-436.

Katz, Daniel and Robert L. Kahn. *The Social Psychology of Organizations*. New York: Wiley, 1966.

Katz, Elihu and Paul Lazarfeld. *Personal Influence*. Glencoe, Ill.: Free Press, 1955.

Keay, William K. "Lies, Damned Lies." *Strive*, 2 (Summer 1971).

Kesey, Ken. *One Flew Over the Cuckoo's Nest*. New York: Viking, 1962.

Kipling, Rudyard. "Tommy." In Departmental Ditties and Ballads and Barrack Room Ballads. New York: Doubleday, Doran, 1929.

Kirkendall, L.A. and R.W. Libbey. Sex and Interpersonal Relationships in the Individual. Baltimore, Md.: Johns Hopkins University Press, 1969.

Kuhn, Thomas. The Structure of Scientific Revolutions. Chicago: University of Chicago Press, 1962.

Lancaster, Richard. Piegan. New York: Doubleday, 1966.

Langer, William L., ed. An Encyclopedia of World History. Boston: Houghton Mifflin, 1948.

Langsam, Walter Consuelo. The World Since 1914. New York: Macmillan, 1940.

Leopold, Aldo. A Sand County Almanac. New York: Oxford University Press, 1968.

Lippitt, R., et al. "The Dynamics of Power." Human Relations, 5 (1952): 37-64.

Lorenz, Konrad. Civilized Man's Eight Deadly Sins. New York: Harcourt, Brace and Jovanovich, 1974.

Loundes, George A.N. The Silent Social Revolution. London: Oxford University Press, 1969.

Luce, Gay G. Body Time. New York: Bantam, 1973.

Macgregor, Gordon. Warriors Without Weapons. Chicago: University of Chicago Press, 1946.

Mahoney, M., et al. "Relative Efficacy of Self Reward, Self Punishment, and Self Monitoring Techniques for Weight Loss." Journal of Consulting and Clinical Psychology, 40 (1973): 404-407.

Metheny, Eleanor. Movement and Meaning. New York: McGraw-Hill, 1968.

Montague, M.F., ed. Culture, Man's Adaptive Dimension. New York: Oxford University Press, 1968.

Moore, Dan. "The Importance of Being Different." Speech delivered at American Association of Health, Physical Education, and Recreation Convention, Detroit, Mich., March 1971.

Nisbet, R.A. The Sociological Tradition. New York: Basic Books, 1967.

Osborne, Cecil. The Art of Understanding Yourself. Grand Rapids, Mich.: Zondervan, 1968.

Otto, Rudolph. The Idea of the Holy. 2nd ed. Trans. by John W. Harvey. New York: Oxford University Press, 1958.

Powys, John Cowper. A Philosophy of Solitude. New York: Simon and Schuster, 1934.

Radin, Paul. Primitive Man as Philosopher. New York: Dover, 1957.

Randall, John Herman, Jr. The Making of the Modern Mind. Boston: Houghton Mifflin, 1926.

Read, P.R. Alive. New York: Lippincott, 1974.

Redfield, Robert. The Primitive World and Its Transformations. Ithaca, N.Y.: Cornell University Press, 1957.

Reich, Charles A. The Greening of America. New York: Bantam, 1969.

Reichenbach, H. Experience and Prediction. Chicago: University of Chicago Press, 1938.

Rice, Theodore D. and Charles Reid. "Efforts Toward Self-Government and Social Responsibility." Journal of Educational Sociology, 30 (September 1956): 75-93.

Robinson, John. Honest to God. Philadelphia: Westminster, 1963.

Rosenthal, R. "Cover Communication in the Psychological Experiment." Psychological Bulletin, 67 (1967): 356-367.

Royce, Joseph R. The Encapsulated Man: An Interdisciplinary Essay on the Search for Meaning. Princeton, N.J.: Van Nostrand, 1964.

Russell, Terry and Renny. On the Loose. New York: Ballantine, 1967.

Sartre, Jean Paul. Being and Nothingness: An Essay on Phenomenological Ontology. Trans. by Hazel E. Barnes. New York: Washington Square, 1966.

Sartre, Jean Paul. The Emotions: Outline of a Theory. Trans. by Bernard Frechtman. New York: Philosophical Library, 1948.

Sartre, Jean Paul. The Transcendence of the Ego: An Existentialist Theory of Consciousness. Trans. and annot. by Forrest Williams and Robert Kirkpatrick. New York: Farrar, Straus and Giroux, 1957.

Schroder, H.M., M. Driver, and S. Streufert. Human Information Processing. New York: Holt, Rinehart and Winston, 1967.

Schultz, Alfred. On Phenomenology and Social Relations. Helmut R. Wagner, ed. Chicago: University of Chicago Press, 1970.

Schutz, William C. Joy: Expanding Human Awareness. New York: Grove Press, 1967.

Scott, M.B. "The Social Sources of Alienation." In Irving Louis Horowitz, ed. The New Sociology. New York: Oxford University Press, 1964.

Simpson, George E. and J. Milton Yinger. "American Indians and American Life." Annals, 1957.

Slusher, Howard S. "Existentialism." 14th Annual Report of the Western Society of Physical Education of College Women (1964): 33-34.

Slusher, Howard S. "Existentialism and Physical Education." Physical Educator, 20 (December 1963): 153-156.

Smith, Roy. "Street Workers' Discussion." What's Happening?, October 1969.

Srole, L. "Integration and Certain Corollaries." American Sociological Review, 21 (1956): 709-716.

Stainbrook, Edward. "Health and Disease and the Changing Social and Cultural Environment of Man." Journal of Public Health, 51 (July 1961).

Stouffer, S., E. Suchman, L. DeVinney, S. Start, and R. Williams. The American Soldier, vols. I and II. Princeton, N.J.: Princeton University Press, 1949.

Styles, Showell. On Top of the World. New York: Macmillan, 1967.

Taft, Jessie. "The Use of the Transfer Within the Limits of the Office Interview." The Family, 6 (October 1924): 145.

Taft, R. "The Ability to Judge People." Psychological Bulletin, 52 (1955): 1-21.

Taylor, A.J.P. The Course of German History. New York: Macmillan, 1945.

Taylor, Gordon Rattray. Rethink: A Paraprimitive Solution. New York: E.P. Dutton, 1973.

Tebbel, John. "People and Jobs." Saturday Review, December 30, 1967.

Thelen, Herbert A. Dynamics of Groups at Work. Chicago: University of Chicago Press, 1963.

"A Third Chance." Film distributed by the Adolph Coors Company, Golden, Colorado.

Thoreau, Henry David. Walden. New York: Holt, Rinehart and Winston, 1964.

Thorstenson, C.T. and R.A. Heaps. "Outdoor Survival and Its Implications for Rehabilitation." Therapeutic Recreation Journal, 7 (1973): 31-33.

Tibbles, Thomas Henry. Buckskin and Blanket Days. New York: Doubleday, 1957.

Tillich, Paul. The Courage to Be. New Haven: Yale University Press, 1952.

Tillich, Paul. Dynamics of Faith. New York: Harper and Row, 1957.

Tillich, Paul. Love, Power, and Justice: Ontological Analyses and Ethical Applications. New York: Oxford University Press, 1960.

Tillich, Paul. Shaking of the Foundations. New York: Charles Scribner's Sons, 1948.

Travis, R.C. "An Experimental Analysis of Dynamic and Static Equilibrium." Journal of Experimental Psychology, 35 (1945): 216-234.

Vital Speeches of Today (September 15, 1964): 725-727.

Walztowicki, P., et al. Change. New York: Norton, 1974.

Watts, Alan. Nature, Man, and Woman. New York: Random House, 1970.

Wells, H.G. The Outline of History. 4th ed. New York: Collier, 1925.

Wells, W.S. and L.F. Bueno. "A Self-Concept Measure of Male and Female Alcoholics." Unpublished manuscript. 1957. Cited in W.H. Fitts. Tennessee Self-Concept Manual. Nashville, Tenn.: Counselor Recordings and Tests, 1965.

Wendel, Robert E. "Occupational Programs are the Future." Journal of Health, Physical Education, and Recreation, 43 (1972): 17.

White, Robert. "Competence and the Psychosexual Stages of Development." Nebraska Symposium on Motivation, University of Nebraska Press, 1960.

White, Robert W. "Motivation Reconsidered: The Concept of Competence." Psychological Review, 66 (1959): 329-330.

White, Robert W., ed. The Study of Lives. Englewood Cliffs, N.J.: Prentice-Hall, 1963.

Wilk, Roger E., W.H. Edson, and J.J. Wu. "Student Personnel Research in Teacher Education." Review of Educational Research, 37 (June 1967): 219-232.

Willoya, William and Vinson Brown. Warriors of the Rainbow. Healdsburg, Calif.: Naturegraph, 1962.

Wineman, David. "The Life Space Interview." Social Work, January 1959.

Winn, Alexander. "Comments On An Article by Bernard Bass." Journal of Applied Behavioral Science, 3 (1967).

Winn, Alexander. "Social Change in Industry: From Insight to Implementation." Journal of Applied Behavioral Science, 2 (1966).

Wolff, Kent, ed. and trans. The Sociology of George Simmel. Glencoe, Ill.: Free Press, 1950.

Wooton, B. Social Science and Social Pathology. London: Allen and Unwin, 1959.

Yamamoto, K. "Healthy Person: A Review Bibliography." Personnel and Guide-F, 44 (February 1966): 596-603.

Zander, Alvin F. "Team Spirits vs. The Individual Achiever." Psychology Today, November 1974.